Jim Gleason's GUITAR ENCYCLOPEDIA

BEGINNING GUITAR

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IMPORTANT! READ THIS INTRODUCTION

Six Subjects

This book follows the traditional convention of step-by-step lessons. It is a carefully arranged series of 219 lessons, in progressive order by subject.

The six subjects covered in this book are indicated in the upper corners of the pages. Here is a list of them in order:

THEORY
TECHNIQUE
FINGERING
RHYTHM
CHORD PROGRESSION
MELODY

Progressive Levels

All of the lessons are rated by level. The book progresses from level 1 to level 2. The levels are rated with decimal points, similar to the Dewey decimal system found in libraries. Level 1.235 comes before level 1.236, for example. Every lesson has a unique level number.

Keep Current In Each Subject

Begin in whichever subject you like. However, you need to keep current in all of the subjects. As you progress page-by-page through one subject, be aware of the level number shown at the top of the page. Before you get more than .1 ahead in one subject, catch up with the others.

Do I Have To Study Every Page?

No. Study most of the book. Where there are multiple examples for the same subject matter, you may skip some of them. If you are *sure* that you know something covered in one of the lessons, skip it. Keep in mind that it is very important to cover the fundamentals thoroughly. If you are considering skipping a lesson, you should still look it over to be sure.

READING THE CONTENTS SECTION THAT FOLLOWS THIS INTRODUCTION

The contents pages are set up in columns. The far left column indicates the progressive lesson level, as described above. The "general" column lists which of the six main subjects (shown above) is covered in the lesson. The "specific" column gives more information regarding the topic of the lesson. The "content" column gives even more specific detail of the nature of the lesson. "CD/track", identifies which CD and track for the example pertaining to a particular level. For example, level 1.010 shows "1-1" in the CD track column, with "1" below it. This indicates that there is a recording on track number 1 (as shown in your CD players display panel) of the CD titled "CD 1-1" (shown on the lower portion of the CD label).

BEGINNING GUITAR CONTENTS

an explanation of the columns below is given in the Introductiion

Page	Level	CD/ track General	Specific	Content
13	1.000	THEORY	Pitch Notation	intro to reading notation: chord diagrams, tablature, chord symbols, slur symbols, full fretboard note names
23	1.039	THEORY	Pitch Notation	first position natural notes
25	1.041	THEORY	Pitch Notation	note names up and down the sixth string
26	1.042	THEORY	Pitch Notation	note names up and down the fifth string
27	1.043	THEORY	Pitch Notation	note names up and down the fourth string
28	1.044	THEORY	Pitch Notation	octaves of notes in first position and related major chords
29	1.045	THEORY	Pitch Notation	note names on the staff; memorize FACE, EGBDF; GFEDCBA
32	1.0471	THEORY	Pitch Notation	memorize first position note names
37	1.048	THEORY	Pitch Notation	memorize the tertian cycle: FACEGBD
38	1.049	THEORY	Pitch Notation	first position C major & A Aeolian scales
39	1.090	THEORY	Pitch Notation	word games
40	1.091	THEORY	Pitch Notation	word games answers
41	1.102	THEORY	Pitch Notation	word games with ledger lines
43	1.104	THEORY	Pitch Notation	answers for word games with ledger lines
45	1.250	THEORY	Scales and Keys	introduction to tone centers, chord roots, chord progression and key
47	1.252	1-1 THEORY 3	Scales and Keys	key and chord progression
49	1.255	1-1 THEORY 4	Pitch Ear Training	intervals: 8va, P5; chords: major, minor
53	1.290	THEORY	Pitch Notation	first position G major and E Aeolian scales
54	1.345	THEORY	Pitch Notation	linear note names on each string
57	1.420	THEORY	Pitch Notation	first position F major and D Aeolian scales
58	1.527	THEORY	Pitch Notation	first position D major and B Aeolian scales
59	1.535	1-1 THEORY 5	Pitch Ear Training	intervals: M3, m3; chord: dim.
64	1.590	THEORY	Pitch Notation	first position Bb major and G Aeolian scales
65	1.636	THEORY	Pitch Notation	first position A major and F# Aeolian scales
66	1.680	THEORY	Pitch Notation	first position E major and C# Aeolian scales
67	1.710	THEORY	Scales and Keys	major scale intervals

Page	Level	CD/ track	General	Specific	Content
70	1.760		THEORY	Pitch Notation	first position B major and G# Aeolian scales
71	1.830	1-1 6	THEORY	Pitch Ear Training	intervals: M2, m2; chord: sus. 4.
75	1.846		THEORY	Formulas	preparation for constructing MS fingering: three ways to finger m2 & M2; do re me = 1,2,3,etc; half steps are 3 to 4 & 7 to 1
79	1.850		THEORY	Formulas	constructing major scale fingerings
87	1.010	1-1 1	TECHNIQUE	Guitar Care	tuning
88	1.011	1-1 2	TECHNIQUE	Guitar Care	tuning notes on CD
91	1.014		TECHNIQUE	Guitar Care	intonating the bridge; changing strings
92	1.020		TECHNIQUE	Hand Coordination	relaxation, massage and stretching; carpel tunnel and other stress syndromes; posture; playing and practicing attitude
95	1.050	1-1 7	TECHNIQUE	Picking Hand	general picking technique; all down picking, all up picking
99	1.054		TECHNIQUE	Fretting Hand	general fretting technique
101	1.056		TECHNIQUE	Fretting Hand	fretting techniques; first hovering exercise
102	1.057		TECHNIQUE	Fretting Hand	closeness and clearing exercise on two strings.
105	1.120		TECHNIQUE	Fretting Hand	fretting pressure exercise
106	1.125		TECHNIQUE	Fretting Hand	chord cancellation exercise
107	1.126		TECHNIQUE	Fretting Hand	simultaneous touchdown exercise
109	1.220		TECHNIQUE	Picking Hand	strummming technique
111	1.235		TECHNIQUE	Fretting Hand	fretting hand muting; rolling technique
113	1.237	1-1 8	TECHNIQUE	Fretting Hand	combined fretting and muting
114	1.300	1-1 9	TECHNIQUE	Fretting Hand	introduction to slide, sliding perfect fifths
115	1.310	1-1 10	TECHNIQUE	Fretting Hand	"recoil" technique: pivoting on the ball of the fretting hand thumb. Keep the thumb only slightly bent at the tip joint during the pivot.
116	1.350		TECHNIQUE	Fretting Hand	barreíng technique
117	1.381		TECHNIQUE	Hand Coordination	open position chromatic scale exercises
120	1.390	1-1 11	TECHNIQUE	Hand Coordination	twelfth fret artificial harmonics
122	1.425		TECHNIQUE	Picking Hand	picking hand heel-of-hand muting
123	1.426	1-1 12	TECHNIQUE	Picking Hand	picking hand heel-of-hand muting exercise: In The Hall Of the Mountain King
124	1.470		TECHNIQUE	Picking Hand	alternate picking; intro to rhythmic picking; economy picking; tilting the pick
129	1.475	1-1 13	TECHNIQUE	Picking Hand	tilting the pick

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130	1.480	1-1 14	TECHNIQUE	Picking Hand	alternate picking exercise: Cantata #147
134	1.485		TECHNIQUE	Picking Hand	economy picking exercise: Cantata #147
138	1.550		TECHNIQUE	Picking Hand	picking hand side-of-hand muting
139	1.551	1-1 15	TECHNIQUE	Picking Hand	Reggae side-of-hand muting
140	1.610	1-1 16	TECHNIQUE	Fretting Hand	introduction to blue note
141	1.640	1-1 17	TECHNIQUE	Fretting Hand	diagonal thirds stretching exercise
142	1.690		TECHNIQUE	Hand Coordination	principles
143	1.691	1-1 18	TECHNIQUE	Hand Coordination	Moto Perpetuo On the First and Second Strings
146	1.694	1-1 19	TECHNIQUE	Hand Coordination	speed exercises on one string: the 123 pattern
147	1.730		TECHNIQUE	Fretting Hand	posture exercise for the index and little fingers
149	1.732		TECHNIQUE	Fretting Hand	closeness and clearing on six strings
151	1.810		TECHNIQUE	Fretting Hand	introduction to hammer and pull off
152	1.811	1-1 20	TECHNIQUE	Fretting Hand	open position pentatonic slur exercise
153	1.812	1-1 21	TECHNIQUE	Fretting Hand	open string slur exercise
154	1.813	1-1 22	TECHNIQUE	Fretting Hand	pentatonic scale slur exercise
156	1.841		TECHNIQUE	Hand Coordination	sixth position chromatic scale exercises
159	1.844		TECHNIQUE	Fretting Hand	more rolling technique exercises
161	1.869	1-1 23	TECHNIQUE	Fretting Hand	Pentatonic Slur Blues
162	1.880		TECHNIQUE	Picking Hand	fingerpicking quarter notes in 4/4 with eighth notes per bar
163	1.881	1-1 24	TECHNIQUE	Picking Hand	preparation for Travis Fingerpicking Exercise 1
164	1.882	1-1 25	TECHNIQUE	Picking Hand	preparation for Travis Fingerpicking Exercise 2
167	1.885	1-1 26	TECHNIQUE	Picking Hand	Travis Fingerpicking Exercise 1
169	1.887	1-1 27	TECHNIQUE	Picking Hand	Travis Fingerpicking Exercise 2
171	1.930		TECHNIQUE	Fretting Hand	general characteristics
173	1.935		TECHNIQUE	Picking Hand	general characteristics
175	1.940		TECHNIQUE	Picking Hand	right hand technique of popular guitarists
180	1.955	1-1 28	TECHNIQUE	Picking Hand	"thumb pluck, index strum"

Page	Level	CD/ track	General	Specific	Content
181	1.956	1-1 29	TECHNIQUE	Picking Hand	"thumb pluck, index strum"
182	1.960	1-1 30	TECHNIQUE	Picking Hand	"pick bass, finger pluck" technique
183	1.961	1-1 31	TECHNIQUE	Picking Hand	"pick bass, finger pluck" Blues #1
184	1.962	1-1 32	TECHNIQUE	Picking Hand	"pick bass, finger pluck" Blues #2
185	1.965	1-1 33	TECHNIQUE	Picking Hand	"thumb strum, finger(s) pluck" technique
186	1.970	1-1 34	TECHNIQUE	Picking Hand	"thumb strum, index strum" technique
187	1.975	1-1 35	TECHNIQUE	Picking Hand	Travis fingerpick minor progression with descending bass, version 1
188	1.976	1-1 36	TECHNIQUE	Picking Hand	Travis fingerpick minor progression with descending bass, version 2
189	1.030		FINGERING	Concept	intro. to notes & fingering; note names at frets 0, 5, 10 & 12
192	1.061	1-2 1	FINGERING	Chords	one finger chords
193	1.062	1-2 2	FINGERING	Chords	one finger blues
194	1.064	1-2 3	FINGERING	Pentatonic Scales	open position E minor 7/11 and G major 6/9
195	1.110	1-2 4	FINGERING	Chords	Two Finger Blues. Two finger chords for two to four beats each: picked version
196	1.111	1-2 5	FINGERING	Chords	Two Finger Blues. Two finger chords for two to four beats each: plucked version
197	1.260		FINGERING	Concept	octave shapes; open position CGDAE, first eight three-finger chords
202	1.320	1-2 6	FINGERING	Arpeggios	defined, open-position one note-per-string arpeggio songs
204	1.322	1-2	FINGERING	Arpeggios	
207	1.351	1-2 7	FINGERING	Chords	Three String Barre Blues with Bass
208	1.380		FINGERING	Intervals	half steps, open-position chromatic scale
209	1.385		FINGERING	Intervals	whole steps, open-position whole-tone scales
210	1.430	1-2 8	FINGERING	Pentatonic Scales	open position A minor 7/11 and C major 6/9
211	1.445		FINGERING	Intervals	all-fretted chromatic scale
213	1.521	1-2 9	FINGERING	Arpeggios	open-position major and minor arpeggios
214	1.522	1-2 10	FINGERING	Arpeggios	open-position one note-per-string arpeggio songs with patterns and bass: minor blues (track 11)
215	1.523	1-2 11	FINGERING	Arpeggios	open-position one note-per-string arpeggio songs with patterns and bass: Sixties Folk Song (track 12)
217	1.525	1-2 12 -13	FINGERING 3	Arpeggios	open-position one note-per-string arpeggio songs with patterns and bass: Major Classic Rock (track 13), Minor Classic Rock (track 14)
219	1.603		FINGERING	Chords	first nineteen chord fingerings

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Page Level 220 1.630		CD/ track	General	Specific	Content		
220	1.630	1-2 14	FINGERING	Chords	quick-changing two finger chords for one or two beats each, including two string barré chords		
224	1.635		FINGERING	Chords	first 35 chord fingerings		
225	1.700	1-2 15	FINGERING	Pentatonic Scales	twelfth position E minor 7/11 and G major 6/9		
226	1.716	1-2 16	FINGERING	Chords	major scale-tone thirds with pedal tones		
227	1.723	1-2 17	FINGERING	Chords	three string barré examples		
228	1.725		FINGERING	Intervals	augmented fourth = diminished fifth, all intervals up to a perfect fifth		
231	1.735	1-2 18	FINGERING	Intervals	perfect fourth song examples		
232	1.736	1-2 19	FINGERING	Intervals	Parallel Fourths Blues		
233	1.740	1-2 20	FINGERING	Intervals	perfect fifth song examples		
234	1.835		FINGERING	Concept	fundamentals, strict vertical position		
240	1.890		FINGERING	Heptatonic Scales	major scale fingering 3; major scale and arpeggio exercise 5-4		
241	1.925		FINGERING	Pentatonic Scales	twelfth position A minor 7/11 and C major 6/9		
242	1.9461		FINGERING	Pentatonic Scales	linear Gm7/11 pentatonic scale exercises		
243	1.9462		FINGERING	Pentatonic Scales			
244	1.993		FINGERING	Reference	pentatonic scale fingering, pentatonic lines; intro to relative major and minor pentatonic		
249	1.9971		FINGERING	Reference	common scales, chords and arpeggios		
252	1.070	1-2 21	RHYTHM	Rhythm Notation	intro to reading rhythm: beats, meter, top number in time signatures, metric accent, tempo in BPM		
255	1.080	1-2 22	RHYTHM	Concepts	subdivision of the beat: duple and triple subdivision		
256	1.100		RHYTHM	Rhythm Notation	left and right repeat signs, repeated beats, repeated bars , numbered endings, double barline ending		
258	1.200		RHYTHM	Rhythm Notation	intro to time signatures, halving values, whole, half and quarter notes		
261	1.205	1-2 23	RHYTHM	Rhythm Notation	intro to rhythmic words; first four four-pulse words in whole beats; first three three-pulse rhythmic words in whole beats		
263	1.319	1-2 24	RHYTHM	Concepts	intro to Swing Eighths		
264	1.325		RHYTHM	Rhythm Notation	dotted notes; dotted half notes		
265	1.326	1-2 25	RHYTHM	Rhythm Notation	dotted notes exercise		
266	1.400		RHYTHM	Rhythm Notation	time signatures		
268	1.410		RHYTHM	Rhythm Notation	whole, half, dotted half and quarter rests; "performing" a rest to accurately end the previous note		
269	1.411	1-2 26	RHYTHM	Rhythm Notation	whole beat rests		

Page	Level	CD/ track	General	Specific	Content
270	1.500		RHYTHM	Rhythm Notation	ties; intro to sustain and rest syncopation
271	1.501	1-2 27	RHYTHM	Rhythm Notation	quarter and half notes with sustain syncopation and rest syncopation
272	1.510	1-2 28	RHYTHM	Rhythm Notation	first seven four-pulse rhythmic words in full beats; first nine three-pulse rhythmic words in full beats
273	1.520	1-2 29	RHYTHM	Rhythm Notation	sustain-syncopated quarter, half, dotted half and whole notes
274	1.530	1-2 30	RHYTHM	Rhythm Notation	rest -syncopated quarter, half, dotted half and whole notes
275	1.600	1-2 31	RHYTHM	Rhythm Notation	eighth notes in pairs; "all four", "gallop" and "Jingle Bells" rhythmic words in eighth notes
276	1.750		RHYTHM	Rhythm Notation	complete eighth note triplets
277	1.751	1-2 32	RHYTHM	Rhythm Notation	eighth note triplet exercises
278	1.755		RHYTHM	Rhythm Notation	compound time signatures: 6/8, 9/8, 12/8
279	1.800	1-2 33	RHYTHM	Rhythm Notation	Rhythmic Word Exercises
280	1.801		RHYTHM	Rhythm Notation	three eighth notes compared to an eighth triplet
281	1.802	1-2 34	RHYTHM	Rhythm Notation	eighth note groups of three compared to eighth note triplets
282	1.805	1-2 35	RHYTHM	Rhythm Notation	first four three pulse words in eighth note groups of three
283	1.900		RHYTHM	Rhythm Notation	Rhythmic Word Exercises
284	1.905	1-2 36	RHYTHM	Rhythm Notation	dotted quarter notes.
285	1.910	1-2 37	RHYTHM	Concepts	introduction to four pulse rhythmic words in eighth notes (the first eight four pulse words)
286	1.911	1-2 38	RHYTHM	Rhythm Notation	all combinations of all eight four pulse rhythmic words in eighth notes with no rests
293	1.225	1-3 1	CHORD Prog	Principles	Reading Strummed Rhythms; Counting Rhythm
295	1.230	1-3 2 -4	CHORD Prog	Song	Rock Song #1, Rock Song #2, Rock Song #3
296	1.231	1-3 5	CHORD Prog	Song	Folkrock #1a
297	1.232	1-3 6	CHORD Prog	Song	Folk Song #1
298	1.240	1-3 7	CHORD Prog	Song	Folkrock #1b
299	1.241	1-3 8	CHORD Prog	Song	Folkrock #2
301	1.270	1-3 9	CHORD Prog	Song	Old English Folk Song
303	1.327	1-3 10	CHORD Prog	Song	Rock Song with mutes
304	1.328	1-3 11	CHORD Prog	Song	R&B Song #1
305	1.336	1-3 12	CHORD Prog	Song	Folkrock #3

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307	1.352	1-3 14	CHORD Prog	Song	Mojo / Voodoo Blues #2 in A
308	1.455	1-3 15	CHORD Prog	Song	House of the Rising Sun
309	1.456	1-3 16	CHORD Prog	Song	Modern Rock Song #1
312	1.460	1-3 17	CHORD Prog	Song	Modern Rock Song #2
313	1.545	1-3 18	CHORD Prog	Song	Chuck Berry Style rhythm
314	1.575	1-3 19	CHORD Prog	Song	Bo Diddley style rhythm
316	1.580	1-3 20	CHORD Prog	Song	Ornament Open chords 1
317	1.581	1-3 21	CHORD Prog	Song	Ornament Open chords 2
318	1.6041	1-3 22 -36	CHORD Prog	Song	barre chord songs
326	1.622	1-3 37	CHORD Prog	Song	Mississippi Blues #1 in E
327	1.741	1-3 38	CHORD Prog	Song	Albert King Style #1
328	1.770	1-3 39	CHORD Prog	Song	Chicago Blues #1 in E
330	1.820	1-3 40	CHORD Prog	Song	Mississippi Blues #2 in A
333	1.823	1-3 41	CHORD Prog	Song	Albert King Style #2
334	1.865	1-3 42	CHORD Prog	Song	Swing Blues #1 In C
335	1.867	1-3 43	CHORD Prog	Song	Swing Blues #2
336	1.870	1-3 44	CHORD Prog	Song	B.B. King Style
337	1.897	1-3 45	CHORD Prog	Song	Page, Who, AC/DC Style rhythm
339	1.060	1-4 1	MELODY	Song	Ode To Joy In C
340	1.065	1-4 2	MELODY	Melodic Examples	open position 641 Em minor 7/11 licks without slurs
344	1.130	1-4 3	MELODY	Song	Happy Birthday
345	1.131	1-4 4	MELODY	Song	Minuet in G, no bass
347	1.280	1-4 5	MELODY	Song	Romanza
348	1.311	1-4 6	MELODY	Melodic Examples	open position 641 Em minor 7/11 licks with slides; on CD: examples of licks over Albert King Style #1 & Mississippi Blues #1
349	1.315	1-4 7	MELODY	Song	Mojo / Voodoo Blues 1 in E
351	1.329		MELODY	Song	Greensleeves, bass only: try to figure out melody

Page	Level	CD/ trac	k General	Specific	Content
352	1.330	1-4 8	MELODY	Song	Greensleeves, easy version in Am with bass
353	1.331	1-4 9	MELODY	Melodic Examples	open position G major 6/9 licks with slides
355	1.335	1-4 10	MELODY	Song	Amazing Grace, easy version in G with bass
356	1.435	1-4 11	MELODY	Melodic Examples	open position 53 A minor 7/11 licks with slides
359	1.440	1-4 12	MELODY	Melodic Examples	open position C major 6/9 licks with slides
360	1.546	1-4 13	MELODY	Song	Chuck Berry Style #1
361	1.615	1-4 14	MELODY	Melodic Examples	E minor 7/11 licks with b3 and b7 blue notes
362	1.620	1-4 15	MELODY	Song	Surf's Up
364	1.650	1-4 16	MELODY	Melodic Examples	A minor 7/11 licks with b3 and b7 blue notes
365	1.705	1-4 17	MELODY	Melodic Examples	twelfth position 641 E minor 7/11 licks with slides
367	1.717	1-4 18	MELODY	Song	Ode To Joy melody
368	1.718	1-4 19	MELODY	Song	Ode To Joy arrangement with thirds
371	1.728	1-4 20	MELODY	Song	Estudio V by Fernando Sor
373	1.742	1-4 21	MELODY	Song	Albert King Style #1
374	1.745	1-4 22	MELODY	Melodic Examples	twelfth position G major 6/9 licks with slides
375	1.780	1-4 23	MELODY	Melodic Examples	minor 7/11 solo in C #1
376	1.781	1-4 24	MELODY	Melodic Examples	minor 7/11 solo in C #2
377	1.815	1-4 25	MELODY	Melodic Examples	open and twelfth position E minor 7/11 licks with slides, hammers and pull-offs
381	1.824	1-4 26	MELODY	Song	Albert King Style #2
382	1.825	1-4 27	MELODY	Song	Acoustic Shuffle in E, no bass
385	1.860	1-4 28	MELODY	Melodic Examples	open and twelfth position G major 6/9 licks with slides, hammers and pull-offs
387	1.866	1-4 29	MELODY	Song	Swing Blues #1 In C
388	1.868	1-4 30	MELODY	Song	Swing Blues #2
389	1.871	1-4 31	MELODY	Song	B.B. King Style
390	1.895	1-4 32	MELODY	Song	Chuck Berry Style #2
391	1.926	1-4 33	MELODY	Melodic Examples	open and twelfth position A minor 7/11 licks with slides, hammers and pull-offs
394	1.929	1-4 34	MELODY	Melodic Examples	Jeff Beck and Albert King solo study

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Page	Level	CD/ track	General	Specific	Content
395	1.945	1-4 35	MELODY	Melodic Examples	open and twelfth position C major 6/9 licks with slides, hammers and pull-offs
397	1.947	1-4 36	MELODY	Song	Hendrix Style Double Stops
400	1.950	1-4 37	MELODY	Song	Mojo / Voodoo Blues 3 in E
405	1.980	1-4 38	MELODY	Song	Minor Blues #1
408	1.983	1-4 39	MELODY	Song	Flight of the Bumblebee
410	1.985	1-4 40	MELODY	Song	Acoustic Shuffle in E

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AN INTRODUCTION TO READING MUSIC NOTATION

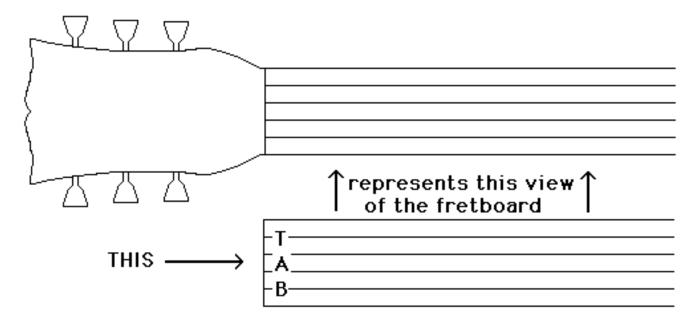
Does music exist in nature or does it imitate nature? It could be said that music exists in nature because it is in the songs of birds, the splashing of waves, the dripping of rain, the stepping of feet, the pecking of a woodpecker and so on. Or, does it imitate nature. Being a romantic, I prefer to think that it exists in nature.

What came first in music, rhythm or pitch? One can't exist without the other, but systems of rhythm developed in cultures faster than systems of pitch. Music has a pulse or rhythm, which is usually regular. In nature, there is a regularity to the splashing of waves, dripping of rain and stepping of feet. We imitate waves beating on the shore, dripping rain and walking feet beat ing on the ground with beats in our music. Beats are commonly played in reguar groups.

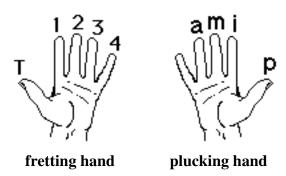
For guitarists, there are three common types of music notation: standard music notation, tablature and chord grid diagrams. Chord grid diagrams are usually the easiest to read.

TABLATURE

This system of notation is a graph of the guitar strings from the perspective of looking down on the guitar as you're playing it. The tablature indicates where each note is fretted. Numbers on the strings indicate frets and are written from left to right in the sequence they are to be played. In this book, tablature is written below all music notation.

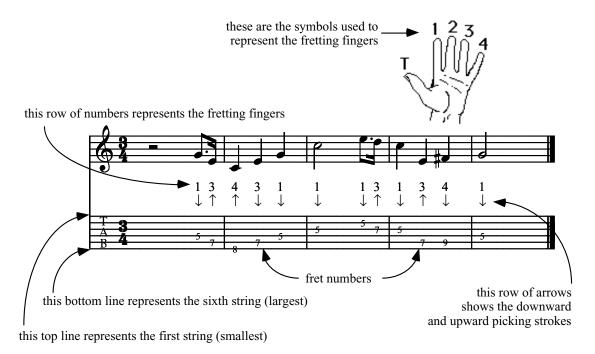


The numbers that indicate the fingers of each hand are shown below. They are typically placed below the standard music notation, between the music notation and the tablature.

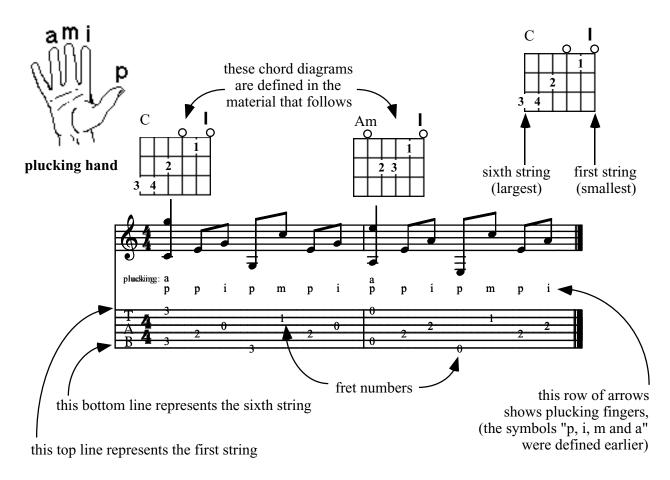


Symbols *above* each tablature number indicate the suggested fretting finger. Right hand symbols are shown above or below notes in the standard music notation. The right hand finger symbols are "p" (pulgar = thumb in Spanish), "i" (indice = index finger in Spanish), "m" (medio = middle finger in Spanish) and "a" (anular = ring finger in Spanish).

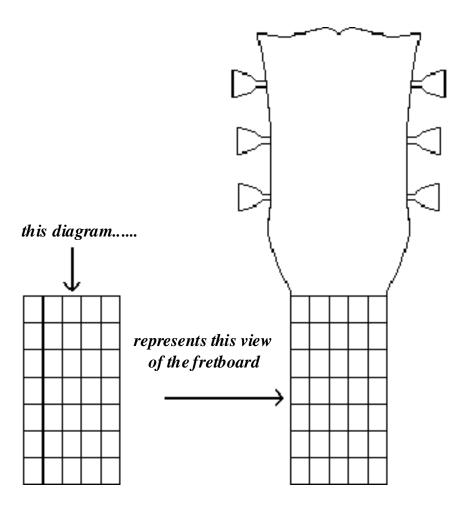
In reading the tablature, remember that the top string on the tablature is the smallest, first string.



The grid diagrams shown above the music notation in the diagram below are aids in reading the tablature. Instruction on reading these grid diagrams is on the following pages. The gird diagrams are used in this cours where the fretting hand mainly retains a particular chord fingering. You still should read the guitar part in the tablature, since it shows the exact sequence of notes.



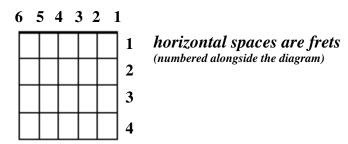
FRETBOARD DIAGRAMS



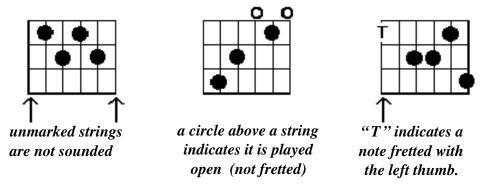
The vertical lines represent strings. The horizontal spaces are frets (numbered alongside the diagram). The actual metal fret is indicated by the horizontal line at the bottom of each space on the diagram.

vertical lines are strings

(numbered above diagram)

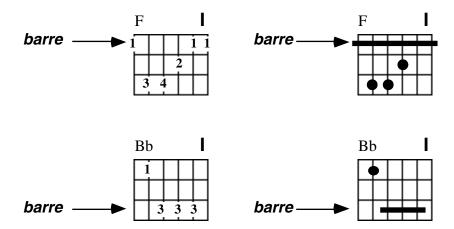


Dots in these diagrams indicate fingered notes. Chord tones are fingered simultaneously. Scale or arpeggio tones (chords played one note at a time) are fingered individually.

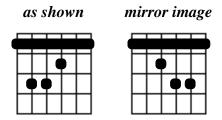


The *barré* is a group of notes all on the same fret of two or more strings fingered with a straight portion of one finger. It uses the classical wrist position. Finger (fret) the barré with the harder edge of your finger when you can. Avoid the creases opposite your knuckles, since they can mute notes.

In the "F" chord shown below with finger numbers, you need to interpret that the first finger is placed across all six strings (as shown in the diagram to its right).



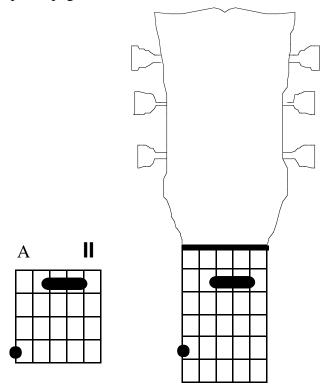
Left-handed guitarists. Interpret references to the right hand as left hand and vice versa. All diagrams must be imagined in "mirror image":



Roman Numerals and Chord Names

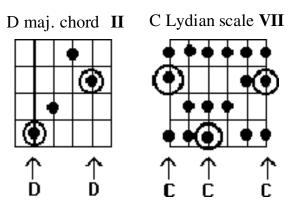
A roman numeral above the top right of the diagram indicates the number of the top fret on the diagram.

A plain letter name, such as "D" indicates a major chord. A small "m" after a letter name indicates a minor chord. "D" means "D major", while "Dm" means "D minor". A few more common chord symbol abbreviations are shown a couple of pages later.



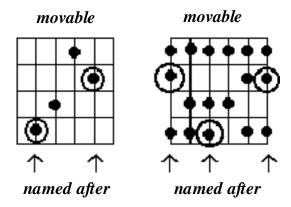
Roots and Tone Centers

A chord root is the note after which a chord is named ("D" is the root of a D major chord). A tone center is the note after which a scale is named ("C" is the tone center of a C Lydian scale).

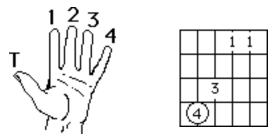


Movable Diagrams

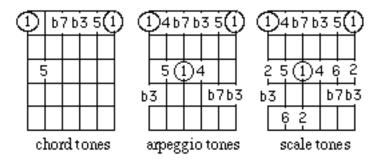
Movable diagrams have no roman numeral on their upper right and therefore have no specified top fret number. They may be placed anywhere on the fretboard according to their chord root(s) or tone center(s). If notes on a diagram are indicated by dots, a circled or enlarged dot indicates the chord root or tone center.



The numbers 1, 2, 3 and 4 within diagrams indicate left hand fingers. The finger number on the chord root or tone center may be circled.



When numbers higher than 4 are used in a diagram, all of the numbers indicate scale, chord or arpeggio tones.



Proceedure Of Reading Chord Diagrams

You read the previous pages and are anxious to play songs. How complicated can it be? True, chord diagrams are a simple graphic representation of fingers on the fretboard, but be careful not to make an error in reading them. It is quite common that someone new to reading chord diagrams "thinks" they have read a diagram correctly, and doesn't find out until much later (if at all) that they have made an error.

Take Your Time And Read Chord Diagrams Right The First Time.

- (1) Read the header (Gm III) with the chord name and roman numeral for position.
- (2) Read across the frets one string at a time from the sixth (largest) string to the first string. *Allow three to five seconds for each string*. The strings are numbered from sixth to first as you scan across the diagram from left to right.

A few things to be careful to recognize:

- whether notes are on the same fret or different frets
- when there is an "empty" fret.
- · when notes are on adjacent strings
- when a string is skipped.

CHORD ABBREVIATIONS & SYMBOLS

7	=	seventh chord (dominant)	9	=	ninth chord
7#5	=	seventh sharp five chord (dominant)	9#5	=	ninth sharp five chord (dominant)
7b5	=	flat five chord (dominant)	9b5	=	ninth flat five chord (dominant)
7#9	=	seventh sharp nine chord (dominant)	°7	=	diminished seventh chord
C	=	C major chord	Cm	=	C minor chord
6	=	sixth chord (major sixth chord)	m6	=	minor sixth chord
6/9	=	sixth add nine chord	m6/9	=	minor sixth add nine chord
$\Delta 7$	=	major seventh chord	m7	=	minor seventh chord
$\Delta 9$	=	major ninth chord	m9	=	minor ninth chord
/9	=	major add nine chord	m/9	=	minor add nine chord
m7b5	=	minor seventh flat five chord	sus. 4	=	suspended fourth chord
m(7)	=	minor, natural 7 chord (minor, major 7)	sus. 2	=	suspended second chord
n3	=	no third			
n5	=	no fifth			

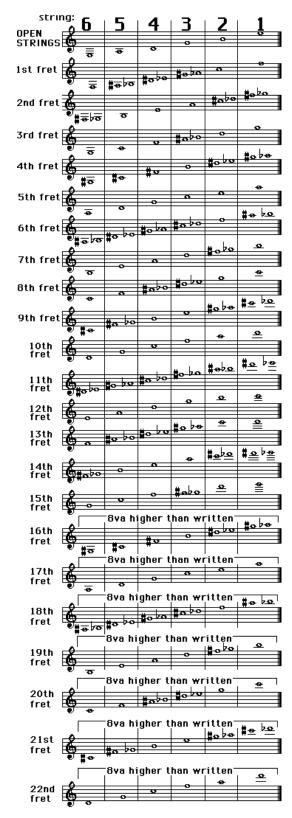
SLUR SYMBOLS

(shown above or below notes in music notation)

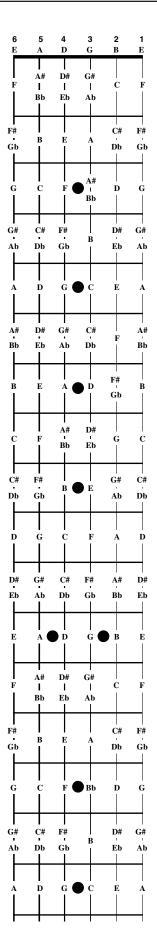
```
Η
              hammer on.
P
              pull off.
S
              slide.
B1
              bend an interval of one fret (a half step or one semitone).
B2
              bend an interval of two frets (a whole step or two semitones. B3 for three frets, B4 for four frets, etc.
R
              release bent note (all bends have a silent release unless "R" is indicated).
(B1)
              silently bend one fret before picking.
(B2)
              silently bend two frets before picking. (B3) for three frets, (B4) for four frets, etc.
+ or #
              blue note. A slight bend (less than one fret) for expression.
GR
              gradual release. Gradually release a previously bent note.
TD1
              tremolo drop one fret. Press the tremolo bar toward the guitar to lower the pitch an interval of one fret.
TD2
              tremolo drop two frets. Press the tremolo bar toward the guitar to lower the pitch an interval of two frets.
TB1
              tremolo bend one fret. Pull the tremolo bar away from the guitar to raise the pitch an interval of one fret
```

- TR = tremolo release. Release pressure on the tremolo bar and allow it to return to its resting point.
- (TD1) = silent one-fret tremolo drop. Before playing the current note, press the tremolo bar toward the guitar to drop the pitch an interval of one fret.
- (TD2) = silent two-fret tremolo bend. Before playing the current note, press the tremolo bar toward the guitar to drop the pitch an interval of two frets. (TD3) for three frets, (TD4) for four frets.
- (TB1) = silent one-fret tremolo bend. Before playing the current note, pull the tremolo bar away from the guitar to raise the pitch an interval of 1 fret.
- (TB2) = tremolo bent 2 frets before picking. Before playing the current note, pull the tremolo bar away from the guitar to raise the pitch an interval of 2 frets. (TB3) for 3 frets, (TB4) for 4 frets.
- rake = play all the notes within the bracket labeled "rake" in one stroke, muting each note with the left hand as soon as it is played. The last note may sustain.
- = harmonics are indicated by open diamond note heads in place of the usual oval notehead.
- X = percussive muted notes are indicated by an "X" notehead in place of the usual oval notehead.

FULL FRETBOARD NOTE NAMES AND STAFF LOCATIONS



^{*} Guitar sounds one octave lower than written.



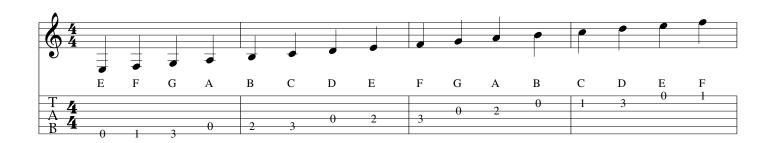
First Position Natural Notes

theo 1.039

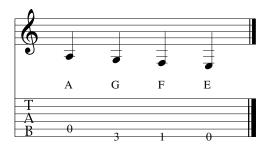
Play the notes below and speak the letter names.

Notice that "E" to "F" and "B" to "C" are one fret apart, as circled below.

All of the other alphabetical pairs of notes (AB, CD, DE, FG and GA) are two frets apart.



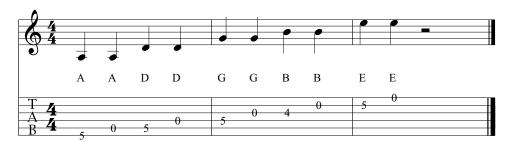




First Position Natural Notes including duplications at the fourth and fifth frets

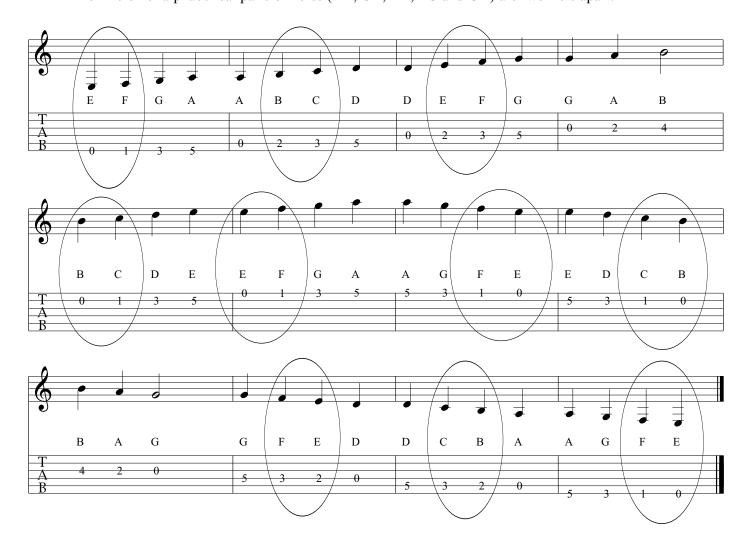
theo 1.040

The example below shows the locations of fretted notes which are the same pitch and note name as the next smaller string open. Except for the third string, this occurs at the fifth fret.



Play the notes below and speak the letter names. On each string, you will play a note which is the same as the next smaller string open. This is indended to show you where the notes duplicate.

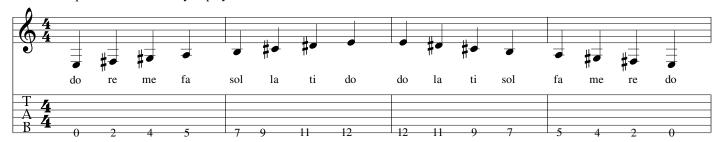
Notice that "E" to "F" and "B" to "C" are one fret apart, as circled below. All of the other alphabetical pairs of notes (AB, CD, DE, FG and GA) are two frets apart.



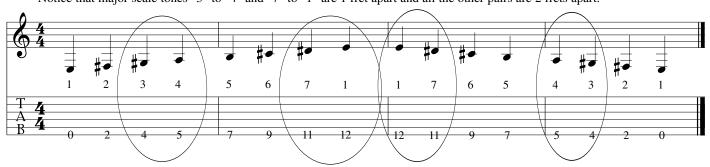
Note Names Up And Down Each String

theo 1.041

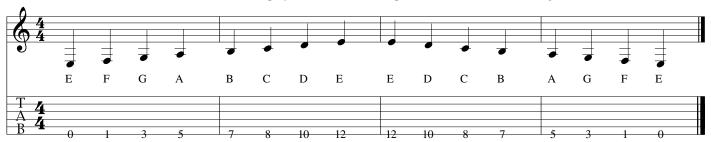
This is an E major scale, named after "E", the note on which it begins and ends. One traditional set of names for the notes of a major scale is "do, re, me, fa, sol, la, ti, do." The eighth note has the same name as the first one and is called an octave Speak these names as you play the notes.



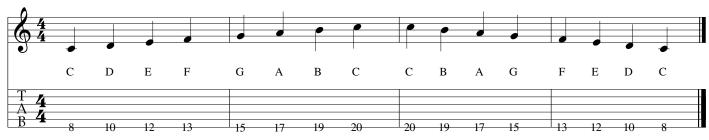
Another set of names for the notes of a major scale is numbering them "1, 2, 3, 4, 5, 6, 7, 1." Again, the eighth note has the same name as the first one and is called an octave. When a note in the music notation has the symbol "#" before it, its name has the word "sharp" after it, such as "F sharp" for the second note below. Speak the numbers as you play the notes. Notice that major scale tones "3" to "4" and "7" to "1" are 1 fret apart and all the other pairs are 2 frets apart.



This is not a major scale. It is the set of all natural notes. Natural notes have no sharps or flats after their name. A version of a note with a sharp in its name (such as "F sharp") is played one fret higher (toward the bridge). A version of a note with a flat in its name (such as "B flat") is played one fret lower in pitch (toward the head of the guitar).

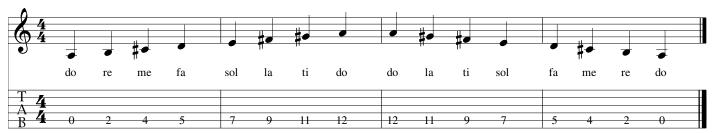


The example above is not a major scale, as you may have heard when you played it. To play a major scale with these notes, they must be played from "C" to "C", as shown below. This is the "C" major scale. All other major scales require one or more sharps or flats.

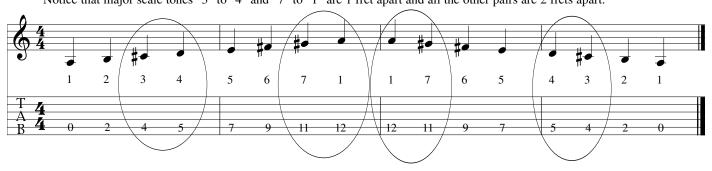


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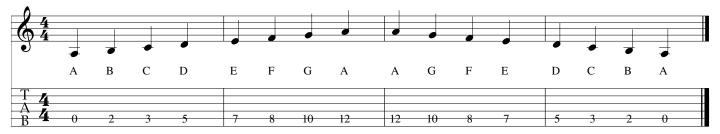
This is an A major scale, named after "A", the note on which it begins and ends. One traditional set of names for the notes of a major scale is "do, re, me, fa, sol, la, ti, do." The eighth note has the same name as the first one and is called an octave Speak these names as you play the notes.



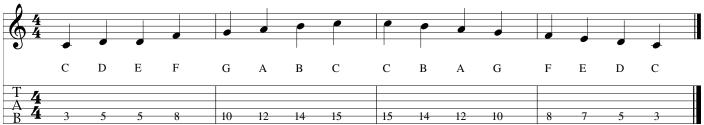
Another set of names for the notes of a major scale is numbering them "1, 2, 3, 4, 5, 6, 7, 1." Again, the eighth note has the same name as the first one and is called an octave. When a note in the music notation has the symbol "#" before it, its name has the word "sharp" after it, such as "C sharp" for the second note below. Speak the numbers as you play the notes. Notice that major scale tones "3" to "4" and "7" to "1" are 1 fret apart and all the other pairs are 2 frets apart.



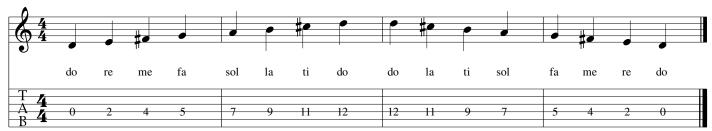
This is not a major scale. It is the set of all natural notes. Natural notes have no sharps or flats after their name. A version of a note with a sharp in its name (such as "C sharp") is played one fret higher (toward the bridge). A version of a note with a flat in its name (such as "B flat") is played one fret lower in pitch (toward the head of the guitar).



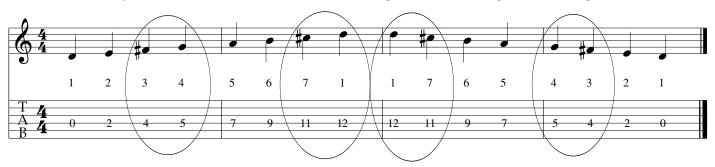
The example above is not a major scale, as you may have heard when you played it. To play a major scale with these notes, they must be played from "C" to "C", as shown below. This is the "C" major scale. All other major scales require one or more sharps or flats.



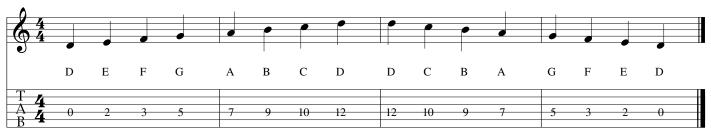
This is a D major scale, named after "D", the note on which it begins and ends. One traditional set of names for the notes of a major scale is "do, re, me, fa, sol, la, ti, do." The eighth note has the same name as the first one and is called an octave Speak these names as you play the notes.



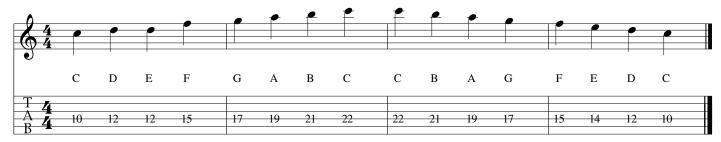
Another set of names for the notes of a major scale is numbering them "1, 2, 3, 4, 5, 6, 7, 1." Again, the eighth note has the same name as the first one and is called an octave. When a note in the music notation has the symbol "#" before it, its name has the word "sharp" after it, such as "F sharp" for the second note below. Speak the numbers as you play the notes. Notice that major scale tones "3" to "4" and "7" to "1" are 1 fret apart and all the other pairs are 2 frets apart.



This is not a major scale. It is the set of all natural notes. Natural notes have no sharps or flats after their name. A version of a note with a sharp in its name (such as "C sharp") is played one fret higher (toward the bridge). A version of a note with a flat in its name (such as "B flat") is played one fret lower in pitch (toward the head of the guitar).



The example above is not a major scale, as you may have heard when you played it. To play a major scale with these notes, they must be played from "C" to "C", as shown below. This is the "C" major scale. All other major scales require one or more sharps or flats. Your guitar may not have enough frets to play this example.

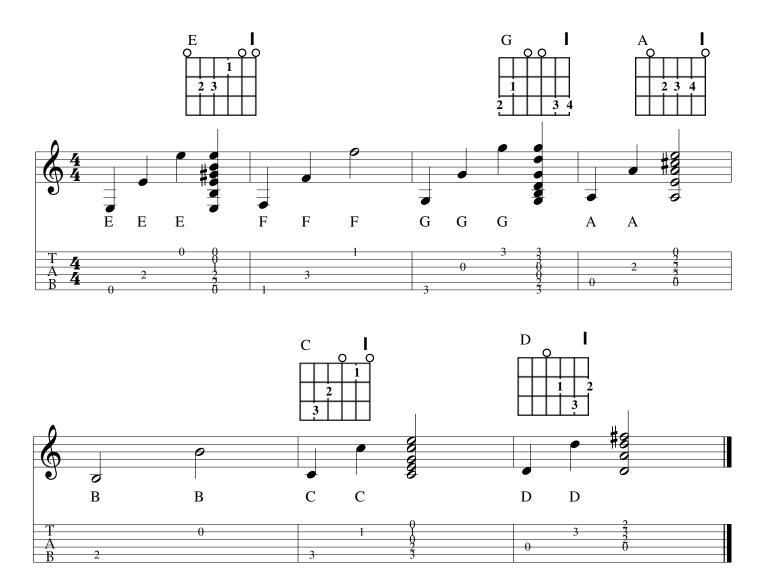


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Octaves Of First Position Natural Notes (and related major chords)

theo 1.044

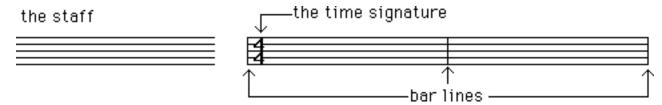


When you fret single notes within the first four frets, you are playing in *first position*. In first position, the index finger frets the first fret, the middle finger frets the second fret, the ring finger frets the third fret, and the little finger frets the fourth fret.

In first position, there are three "E's", three "F"s" and three "G's". "A", "B", "C" and "D" occur in two places each. For each of the letter-named notes, *the lowest note is written below the staff*. The highest of each letter-named note occurs near the middle or top of the staff. For the notes that occur in three places ("E", "F" and "G"), the middle note is written near the bottom of the staff.

NOTE NAMES ON THE STAFF

The *staff* is a group of 5 horizontal lines on which music is written. The plural is usually "staves", but may be "staffs".

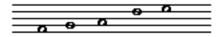


Bar lines (above) are vertical lines written across the staff to divide it into groups of beats. Each group of beats is called a *bar*. Time signatures (see Chapter 22, section B) indicate the number of beats in the bars that follow it.

Ledger lines are short lines placed above or below the staff to add to its range.

The parts of notes are the *head*, *stem*, *flag*, *beam* and *dot*.

The *head* of a note is an oval. It is centered vertically on or between the lines of the staff. The whole note's only part is its head.



The *stem* of a note is a vertical line connected to the head. It connects to the left if it goes down from the head and to the right if it goes up. Stems on note heads above the middle of the staff are usually written down. Stems on heads below the middle of the staff are usually written up. Stems on the center line of the staff can be written up or down.



When *two voices* (two instrument or voice parts) are written on the same staff, the upper part is usually written with all stems up and the lower part with all stems down:

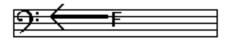


A *clef* is a sign placed on the staff at the beginning of a piece of music to indicate the placement of the letters. The letters used in music include "A, B, C, D, E, F, and G."

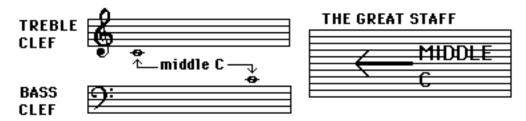
The *treble clef* or "G" *clef* assigns the letter "G" to the second line from the bottom of the staff. Guitar music is written on the treble clef. Notes on the treble clef are completely above those on the bass clef in pitch.



The bass clef or "F" clef assigns the letter "F" to the second line from the top of the staff. Notes on the bass clef are completely below those on the treble clef in pitch.

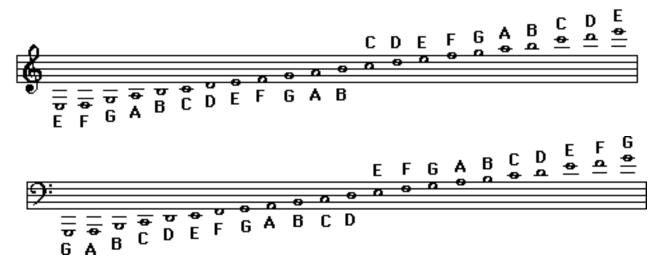


Middle C is the C nearest the middle of the piano keyboard. It is the "dividing line" between the treble and bass clefs. It is on the first ledger line below a staff using the treble clef and the first ledger line above a staff using the bass clef.



The treble and bass clefs were originally part of the *great staff*, which had eleven lines. The top five lines were extracted to make the treble clef, and the bottom five lines were extracted to make the bass clef. The center line of the great staff was middle C.

The notes on the staves are in alphabetical order:



Guitar is usually written on the treble clef, transposed down one octave.

NOTES WRITTEN FOR GUITAR HERE

ACTUALLY SOUND HERE



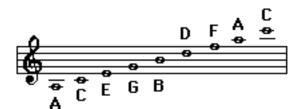


The letter names on the treble clef are easy to memorize with the use of a few associations. From bottom to top, the notes on the lines of the staff are the first letters of the words in this sentence: $\underline{\underline{E}}$ very $\underline{\underline{G}}$ ood $\underline{\underline{B}}$ oy $\underline{\underline{D}}$ oes $\underline{\underline{F}}$ ine. From bottom to top, the notes on the spaces of the staff spell the word "FACE."





The notes on the lines (including ledger lines) are in an alternate alphabetical pattern: A, C, E, G, B, D, F, A, C, etc. Likewise, the notes on the spaces are in the same alternate alphabetical pattern: A, C, E, G, B, D, F, A, C, etc. Memorize the alternate alphabetical cycle shown at the right below:



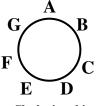




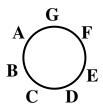
Note Names In Reverse Order (GFEDCBA or "gee-fed-cee-bah")

Most of us were not taught to think the alphabet backward, as well as forward. In music, whenever notes descend (go down) a seven tone scale such as the major scale, you will need to think the letters backward. As a memory device, think of the reverse series of letters as a middle eastern-sounding word, pronounced: "geefed-cee-bah". Of course, the notes continue down the scale after "A", forming the cycle "GFEDCBAGFED, etc."





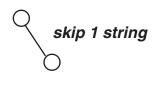
Clockwise, this shows note names ascending a scale

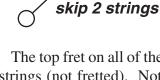


Clockwise, this shows note names descending a scale

Memorizing First Position Note Names

EADGBE FCFCF BEA GCF DG

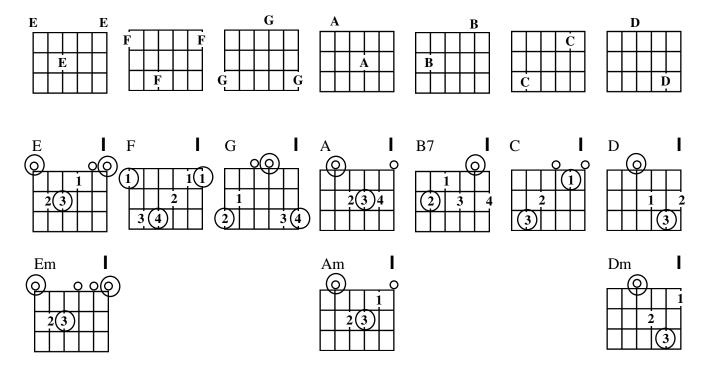




Note Names On The Guitar

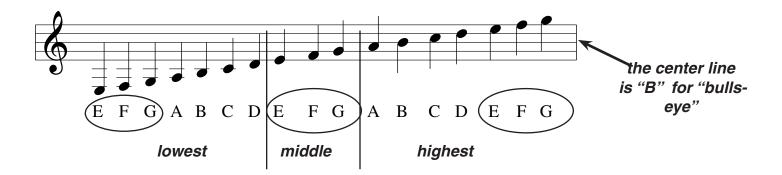
- the open strings, from sixth to first string are Eat A Darn Good Breakfast Early (E A D G B E).
- E to F is one fret. B to C is one fret.
- AB, CD, DE, FG and GA are each two frets apart.
- There are three each of the notes E, F and G.
- The note name at any fret on the sixth string is the same at that fret on the first string.
- Octaves "skip" one or two strings, depending on their angle. Octaves are notes which have the same name, but are eight letter names apart (counting the starting and ending notes). See the diagrams at the left below.
- Octaves of A, B, D, E and G each include an open string.
- The fingering pattern on strings 1, 2 and 6 is open, 1, 3.
- The fingering pattern on strings 5 and 4 is open, 2, 3.
- The fingering pattern on string 3 is open, 2.
- Memorize the locations of the notes after which each chord is named below

The top fret on all of the diagrams below is the first fret. The tiny circles above the chord diagrams indicate open strings (not fretted). Notes enclosed in the large circles below have letter names after which the chord is named. In each diagram, the notes enclosed in the large circles are octaves (eight letter names apart). Letter names for notes above the diagrams indicate open strings.

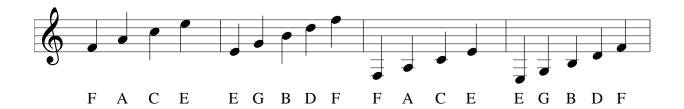


Note Names On The Staff

- The notes go up from line to space in alphabetical order.
- "E", "F" and "G" each occur in three places in the range of notes shown below.
- "A", "B", "C" and "D" each occur in two places in the range of notes shown below.
- The lowest of each of the natural notes in first position is below the staff.
- The middle of each of the sets three notes with the same name (E, F and G) is near the bottom of the staff.



- Spaces (notes between lines) are FACE, from bottom to top. Going up on lines beginning with the third ledger line below the staff is also FACE.
- Lines from bottom to top are represented by the first letter of each word in the sentence: Every Good Boy Does Fine. Going up on spaces beginning with the note below the third ledger line below the staff is also EGBDF.
- "B" is on the center line of the staff. Think of it as the "bulls-eye" (see the arrow at the right above).
- FACE and EGBDF overlap in the every-other-letter cycle FACEGBD shown at the right below.



The Staff Game

This game will help you to memorize the names of the notes on the staff, using the word "F-A-C-E" for the spaces and the sentence "Every Good Boy Does Fine" for the lines. You need to recall the names of the notes on the staff directly, without having to think through the word "face" or through the sentence "every good boy does fine". In this game, you'll make the transistions to think directly to each letter name.

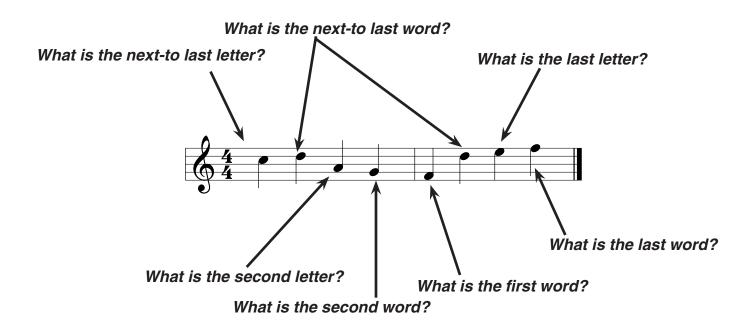
This is a question and answer game. The questions and answers for the spaces regard the word "face". They are:

question	<u>answer</u>
what is the first letter?	.F
what is the second word?	.A
what is the next-to-last letter?	.C
what is the last letter?	E

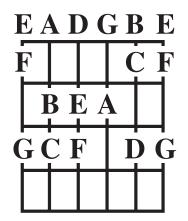
The questions and answers for the lines of the staff regard the sentence "every good boy does fine". The answers are intentionally abbreviated to the first letter of each word. They are:

question	<u>answer</u>
what is the first word?	E
what is the second word?	G
what is the middle word?	B
what is the next-to-last word?	D
what is the last word?	F

Part of this game is knowing how to ask the questions. Here are the eight questions (in order) for the eight-note example below:



Beginning To Read: Putting the Fretboard and Staff Together



Read the diagram at the left and play the notes from "G" on the third string to "G" on the first string. Then, play the notes from "G" to "G" again as you read the last eight notes on the staff below. Think the letter names as you focus on the notes on the staff.



Now, using those eight notes (seven of them, actually), play the melody to Ode To Joy shown below.

Ode To Joy

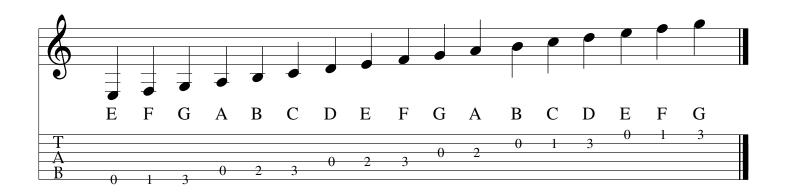
from Beethoven's Ninth Symphony



SELF TEST

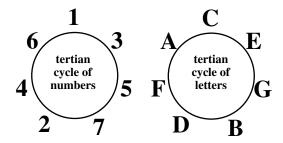


- 1. Look at any note above.
- 2. Speak its name and play it.
- 3. Confirm you have played it correctly with the chart below.



THE TERTIAN CYCLE

Tertian is Greek for "made of threes". From each number in the cycle, counting the number on which you begin, it is three numbers to the next. Think of it as an every-other-number pattern, where after "7" you skip "1" and continue from "2". After "6" you skip "7" and begin again at "1".



In letters, this cycle represents the pattern of note names on "all lines" or "all spaces" in music notation:





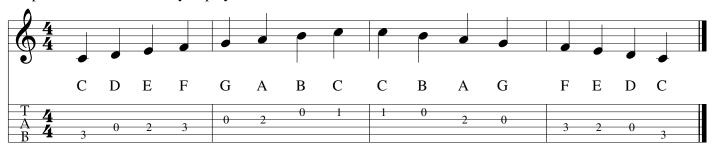
In letters and numbers both, the tertian cycle is the pattern of letters with which harmony and chords are made. A "C major chord" consists of the notes "C, E, G", which are three consecutive letters in the tertian cycle, beginning with "C". The combination of the notes "F, A, C" also constitutes a major chord, as does "G, B, D". Some combinations constitute a minor chord, such as "D, F, A" and "A, C, E". Some chords use all seven letters. A complete "G13" chord consists of "G, B, D, F, A, C, E". More details are given in the materials that follow.

Thinking in numbers, a major chord can consist of "135", "4, 6, 1" or "5, 7, 2", while a minor chord can consist of "2, 4, 6", "3, 5, 7" or "6, 1, 3". All of these examples involve consecutive groups of numbers from the tertian cycle. Not all chords follow this convention, but it is the basis of chord construction and is best to learn first. All the details of chord construction will be taught in the materials that follow.

C major scale in first position

theo 1.049

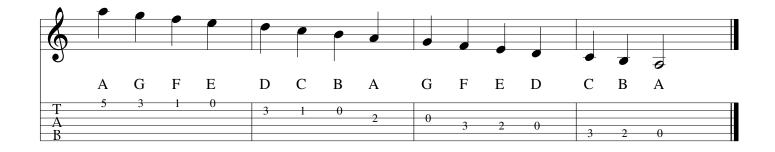
Speak the note names as you play.



A natural minor (A Aeolian) in first position

Speak the note names as you play.





Word Games

theo 1.090

Write the letter name under each note. Each bar should spell a word.



Word Games Answers



Word Games On Ledger Lines

theo 1.102

Write the letter name below each note. Each bar spells a word.



Word Games On Ledger Lines (continued)

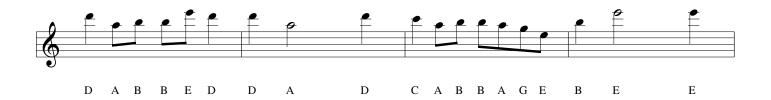




Word Games On Ledger Lines - Answers



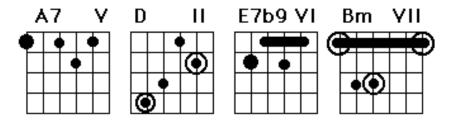
Word Games On Ledger Lines - Answers (continued)





CHORD ROOT

A *chord root* is the note after which a chord is named. "A" is the root of an A7 chord. "D" is the root of a Dm7 chord. "Eb" is the root of an Eb7 chord. The root is the main note of a chord. Enlarged or circled notes on diagrams indicate chord roots.



A chord root is the lowest bass note you can *imagine* in a chord. In the chord below, the lowest pitch that sounds is not the root of the chord. The bass note (on the fourth string) is "E", but the root is "C".

\mathbf{C}				
	()	C)
			1	
	2			

The version of the chord below includes the root in the bass. The root is a "C" note, after which the chord is named.



TONIC CHORD

The tonic chord (or "main chord") is the chord you would expect the piece of music to end on. It is the chord which sounds most resolved in a piece of music. A tonic chord is used to give the most final sound at the end of a piece.

I said "you would expect" the piece of music to end on the tonic chord in the previous paragraph, because although the listener expects a song to end on the tonic chord, it doesn't have to. A song can end with a deceptive *cadence* (chord sequence) where the final chord is not the tonic chord. This type a ending is intended to "trick" the listener. Although a deceptive cadence does not produce as strong a feeling of resolution, it still can be stimulating. Likewise, songs often begin on the tonic chord, but they don't have to.

Many recorded pieces of music have a "fade-out" ending. No distinct ending chord is played with a fade-out. I have always hated fade-out endings. I much prefer hearing the ending the band or artist would play in a live performance. The only exception would be where there is some point to fading out, such as the main character in the lyric is walking off into the woods or something of that nature.

Here are some compositional techniques of establishing the tonic chord:

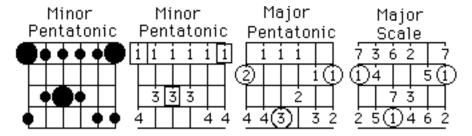
- 1. Use long duration or frequent occurrence of the main chord.
- 2. Use the root of the main chord as the continual bass note for a series of chords.
- 3. Progressions are typically built with groups of two or four bars. Ending with the desired tonic chord establishes stronger tonality than beginning with it, especially where the tonic chord begins the third or fifth bar.
- 4. Use a main chord which has a strong consonance. Example "a" below is the strongest consonance and example "c" has the weakest consonance.
 - a. The main chord usually has a strong tonality (is easy to establish as the main chord) in major, Dorian, Mixolydian or Aeolian mode (when major, Dorian, Mixolydian or Aeolian scales are used).
 - b. The main chord has a passive tonality (somewhat difficult to establish as a main chord) in Phrygian or Lydian mode (when Phrygian or Lydian scales are used).
 - c. The main chord has a weak tonality (quite difficult to establish as the main chord) in Locrian mode (when Locrian scale is used).
- 5. Use the root of the main chord in a low range of pitch.

TONE CENTER

The *tone center* of a piece of music is the root of the tonic chord (the chord you expect the piece to end on). If the tonic chord is Cm7, the tone center is "C." If the tonic chord is Ebm, the tone center is "Eb."

Cı	n7	,		Ш			Et)			
	.,	В	b	0	;				В	b	
			Е	b						Е	ŀ
		}							j		
							Е	b			

Whenever scales are shown on diagrams in this book, the tone centers are indicated by enlarged, circled, or "squared" notes:



KEY

A song is said to be in a key named after the tone center. If the tone center is "A", the song is said to be in the key of "A". The key may be further qualified by the scale or mode type, such as "A" major, "A" minor or "A" Mixolydian.

The term "minor" is often used loosely in key names where the song may be in any mode which has a minor chord built on the tone center (e.g., Aeolian or harmonic minor). Likewise, the term major is sometimes used in reference to any mode which has a major chord built on the tone center (e.g., Mixolydian or Phrygian major).

In the example below, the Am chord sounds resolved at the end. The piece is in the key of A minor.

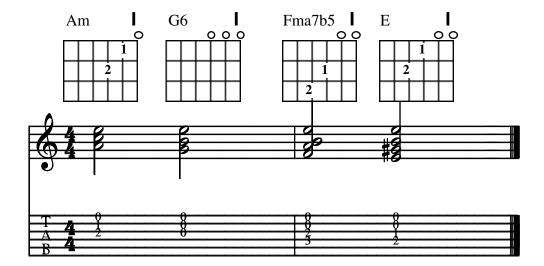


Elsewhere, in the same piece of music, the section below appears. It has a sense of temporarily being in the key of E major (the specific scale it uses is E Mixolydian flat six, but the tonic chord is E, and the primary sound of the scale is E major). The E major chord sounds somewhat resolved at the end of the example. but you might get the sense that the melody is going back to the key of A minor afterward (play the example below, then the example above).



CHORD PROGRESSION

A chord progression is any sequence of chords. Typically, a chord progression is repeated during a piece of music. Each section of the piece of music (verse, chorus, etc.) may use a different chord progression. There may be different versions of each chord progression. Here is a simple chord progression:



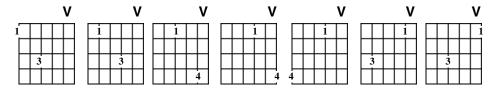
EAR TRAINING

Become familiar with the sound of the intervals below. Changing the position in which an interval is played changes the names of the notes, but the interval remains the same.

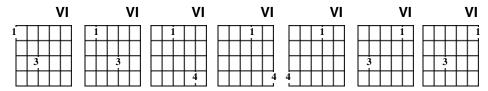
OCTAVES

All 21 of the intervals below are octaves. It doesn't matter which position they are played in, since *intervals* are measurements, not specific notes.

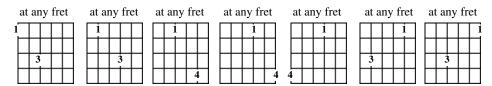
these are octaves in the fifth position



these are octaves in the sixth position



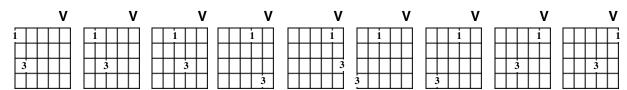
octaves are octaves, no matter which position you play them in



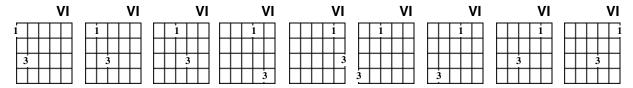
Perfect Fifths

All 24 of the intervals below are octaves. Like octaves, it doesn't matter which position they are played in. *Intervals* are measurements, not specific notes.

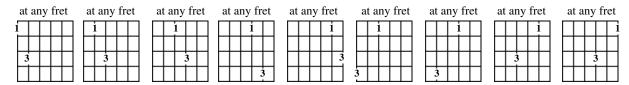
these are perfect fifths in the fifth position



these are perfect fifths in the sixth position

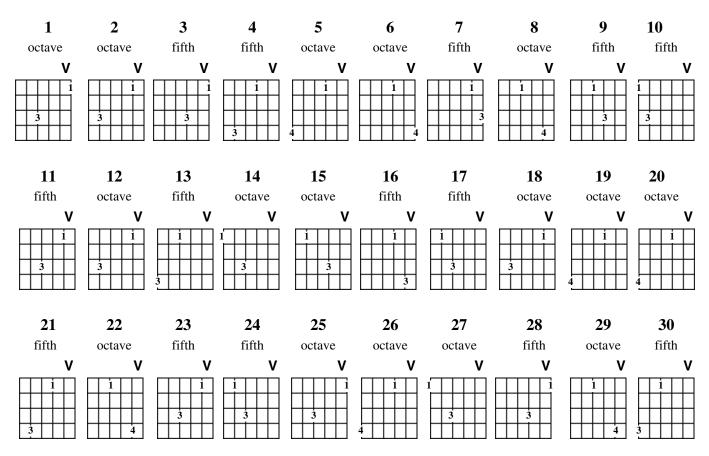


perfect fifths are perfect fifths, no matter which position you play them in



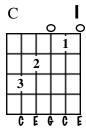
EAR TRAINING TEST 1.256

On the CD, each interval example below will be played, then identified as a perfect fifth or octave. Listen to each example and attempt to identify the intervals before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. In the answer rows below, "fifth" means perfect fifth.

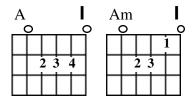


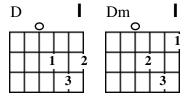
A chord is the simultaneous sounding of two or more different notes. Most often, a chord has three or more different notes. Chords with three different notes are called *triads*. The most common triads are major and minor.

The major chord below combines "C", "E", and "G" notes. Although there are five notes in the chord, there are only three *different* notes. The names of the notes are shown below the strings (C, E, G, C, E).

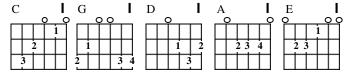


Each chord has a root name. The root of a "C" major chord is "C", and the root of a "D" major chord is "D". The *quality* of both of them is major. Major chords express happiness, while minor chords express sadness. To experience this, play the A major and A minor chords and the D major and D minor chords below. The chord name "D" abbreviates the full chord name "D major chord", and the chord name "Dm" abbreviates the full chord name "D minor chord".

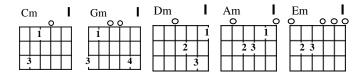




these are major chords



these are minor chords



EAR TRAINING TEST 1.258

On the CD, each chord example below will be played, then identified as a major or minor chord. Listen to each example and attempt to identify the chords before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below.

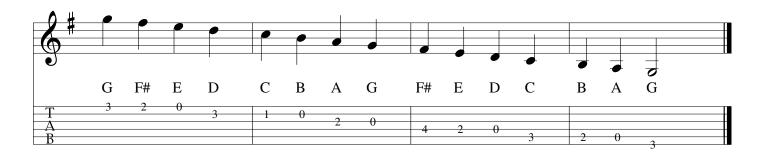
1	2	3	4	5	6	7	8	9	10
minor	major	major	minor	minor	major	major	minor	minor	minor
Em 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D I	C C C C C C C C C C	Am 0 0 0 1 1 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gm 1 3 4	E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	G I O O O O O O O O O	Gm 0 0 1 1 4	Cm O	Em 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11	12	13	14	15	16	17	18	19	20
major	major	minor	minor	major	minor	minor	minor	major	major
D I	A O O O O O O O O O O O O O O O O O O	Dm 1 2 3	Am 0 0 0 1 1 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G C C C C C C C C C	Am 0 0 1 1 2 3 1	Cm 1 3 3 3 3 3 3 3 3 3	Gm I 3 4	C	E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
21	22	23	24	25	26	27	28	29	30
major	major	minor	minor	major	minor	minor	minor	major	major
C 0 0 0 1 1 1 2 1 3 1 1 3 1 1 1 1 1 1 1 1 1 1 1	G I 1 2 3 4	Dm 1 1 2 1 3	Am 0 0 0 0 1 1 1 1 2 3 1	E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Em 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gm 1 3 4	Dm 1 2 3	A C C C C C C C C C	A O O O O O O O O O O O O O O O O O O

G major scale in first position

theo 1.290

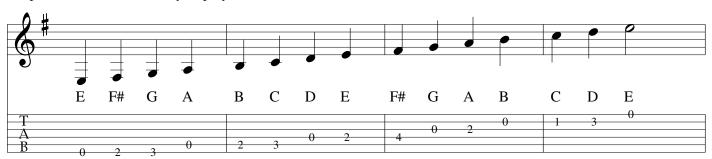
Speak the note names as you play.

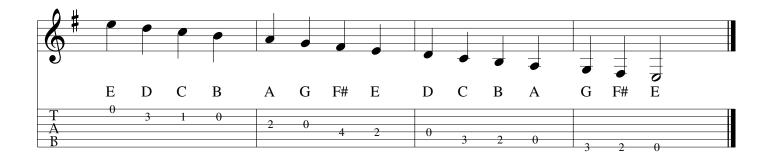




E natural minor (E Aeolian) in first position

Speak the note names as you play.

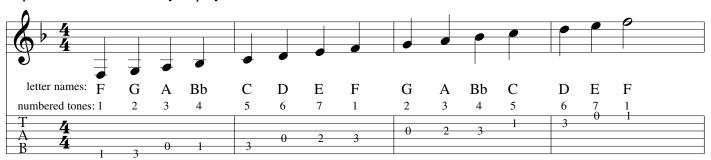


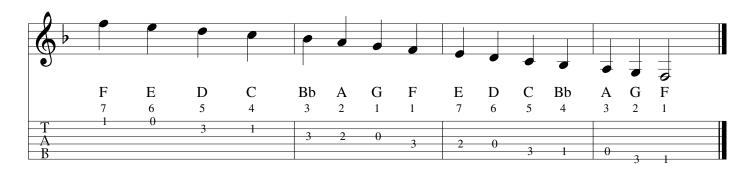


F major scale in first position

theo 1.420

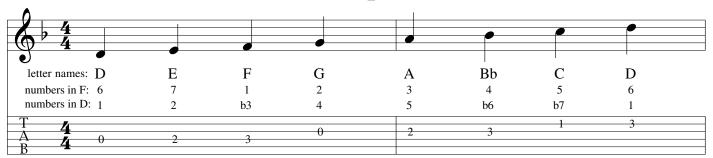
Speak the note names as you play.

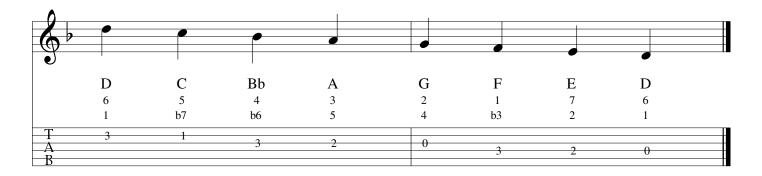


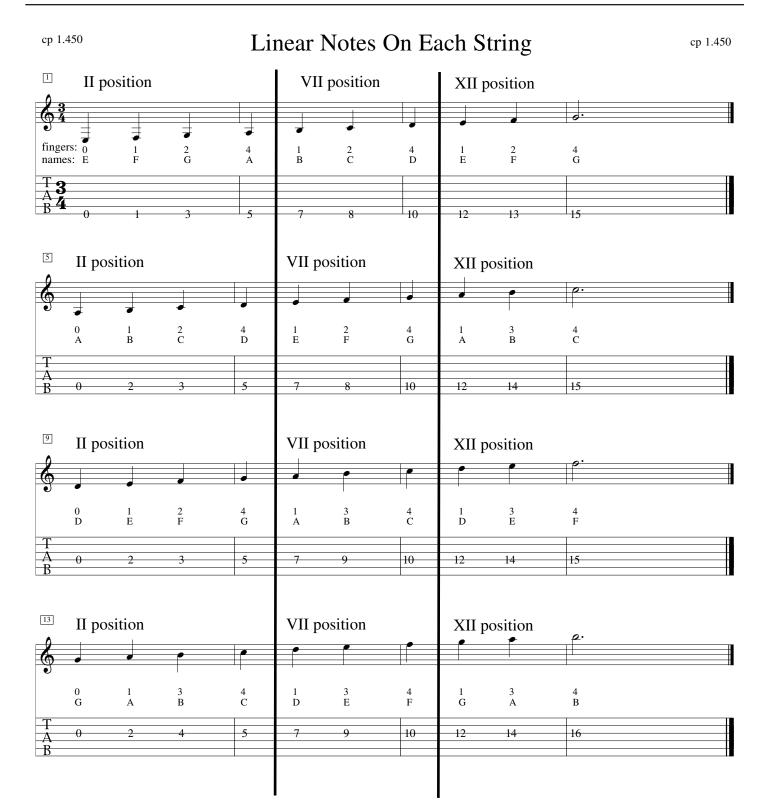


D natural minor (D Aeolian)

Speak the note names as you play. in first position





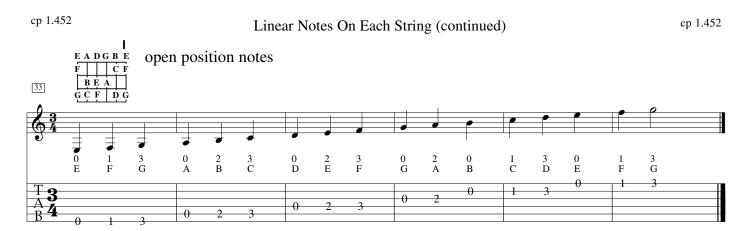


cp 1.451

Linear Notes On Each String (continued)

cp 1.451





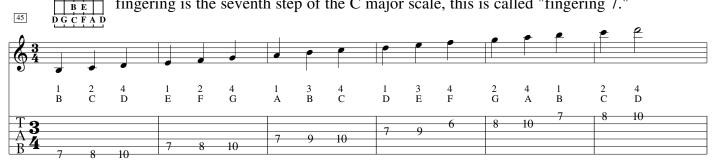
XII
E A D G B E
F C F
B E A
G C F D G

BEAD B

At first, play the notes below with the index finger barring the twelfth fret, so you can associate them with the notes in open position. Once you have begun to memorize the note names, finger the notes with the index finger moving to each string as needed. Since the lowest reachable note in this fingering is the rhird step of the C major scale, this is called "fingering 3."



Play these natural notes at the seventh fret (seventh position). Notice that there is no note freted with the first finger on the second string. Since the lowest reachable note in this fingering is the seventh step of the C major scale, this is called "fingering 7."



Play these natural notes at the first fret (<u>second</u> position, since the hand mainly plays with the first finger at the second fret). Since the lowest reachable note in this fingering is the fourth step of the C major scale, this is called "fingering 4."

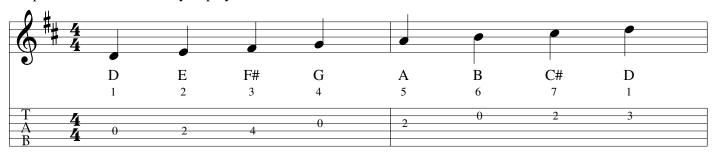


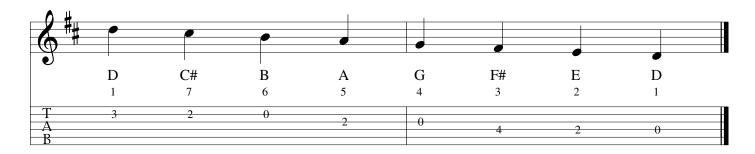
G C F D G

D major scale in first position

theo 1.527

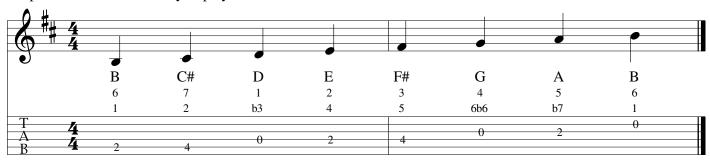
Speak the note names as you play.

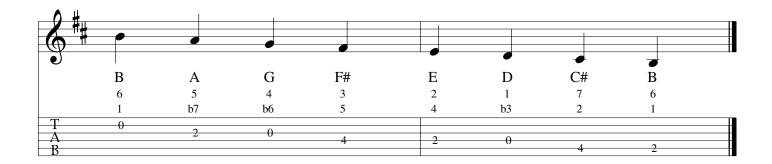




B natural minor (B Aeolian) in first position

Speak the note names as you play.





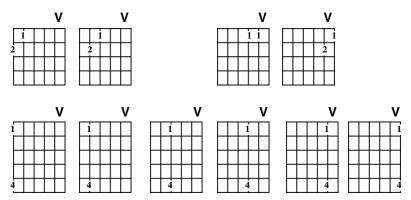
EAR TRAINING

Become familiar with the sound of the intervals below. Changing the position in which an interval is played changes the names of the notes, but the interval remains the same.

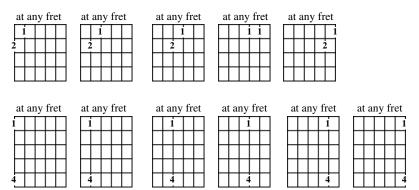
Major Thirds

All 22 of the intervals below are major thirds (the four rows of diagrams below). It doesn't matter which position they are played in, since *intervals* are measurements, not specific notes. They can occur on two adjacent strings, or on a single string.

these are major thirds in the fifth position



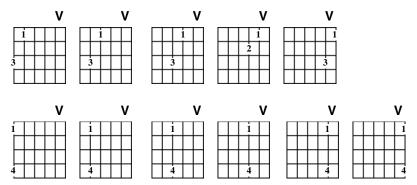
major thirds are major thirds, no matter which position you play them in



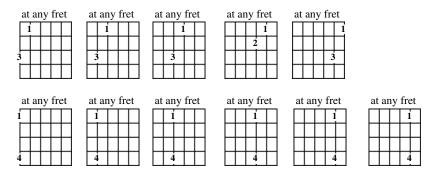
MINOR THIRDS

All 22 of the intervals below are minor thirds (the four rows of diagrams below). It doesn't matter which position they are played in. *Intervals* are measurements, not specific notes. They can occur on two adjacent strings, or on a single string.

these are minor thirds in the fifth position

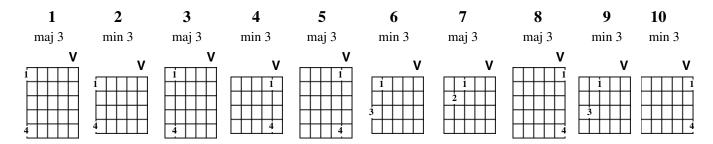


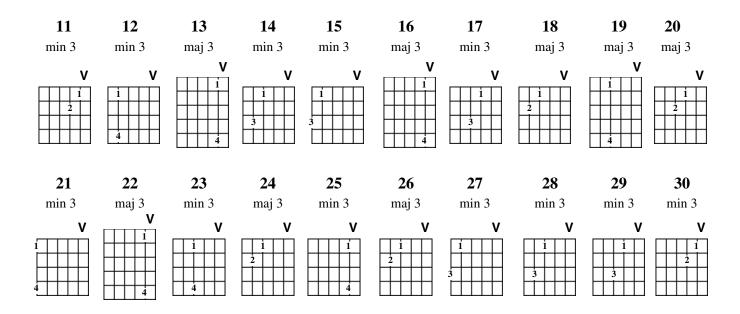
minor thirds are minor thirds, no matter which position you play them in



EAR TRAINING TEST 1.536

On the CD, each interval example below will be played, then identified as a major third or minor third. Listen to each example and attempt to identify the intervals before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. In the answer rows below, "maj 3" means major third and "min 3" means minor third.





EAR TRAINING TEST 1.537

review octave, perfect fifth, major third and minor third

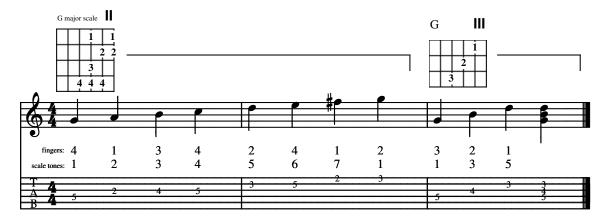
On the CD, each interval example below will be played, then identified. Listen to each example and attempt to identify the intervals before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. You may want to review the previous ear training on octaves and perfect fifths.

1 octave	2 maj 3	3 min 3	4 maj 3	5 octave	6 fifth	7 min 3	8 octave	9 maj 3	10 maj 3
V 3 3	V	V	V	V 1 3 3	V 1 3 3	V	V	V	V 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
11	12	13	14	15	16 maj 3	17	18	19	20
fifth V	v V	maj 3	win 3	v V	V 1 1 4	win 3 V	maj 3	maj 3 V	fifth V
21	22	23	24	25	26	27	28	29	30
octave	maj 3	octave	min 3	min 3	maj 3	fifth	octave	min 3	min 3
V	V i i i i i i i i i i i i i i i i i i i	V 3 3	V 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	V	V 2 2	V 1 3 3	V 1 1 4	V	V 1 2 2

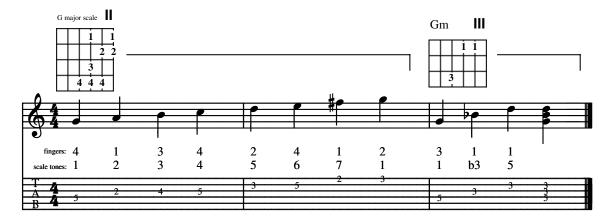
MAJOR, MINOR AND DIMINISHED CHORDS AND ARPEGGIOS

A major chord consists of the first, third and fifth tone of a major scale. A minor chord consists of athe first, a flatted third (lowered in pitch by one fret) and fifth tone of a major scale. A diminished chord consists of the first, a flatted third and a flatted fifth tone of a major scale. When a chord is played one note at a time it is an *arpeggio*. When the tones of an arpeggio are played simultaneously, they make a chord.

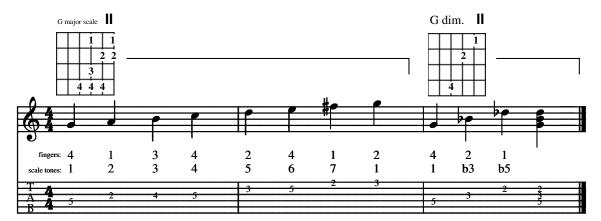
G major scale and G major chord



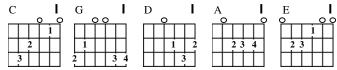
G major scale and G minor chord



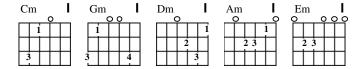
G major scale and G diminished chord



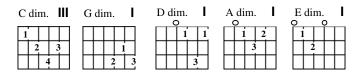
these are major chords



these are minor chords



these are diminished chords



EAR TRAINING TEST 1.539

major, minor and diminished chords

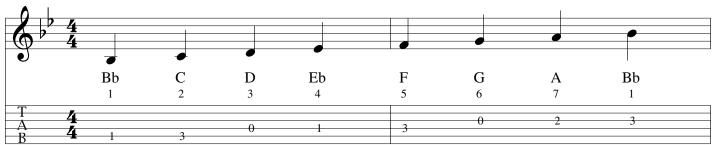
On the CD, each chord example below will be played, then identified. Listen to each example and attempt to identify the major, mnor or diiminshed chord quality before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. You may want to review the previous ear training on major and minor chords.

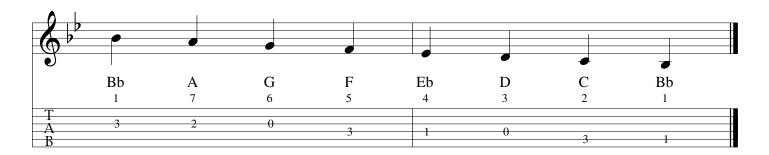
1 major	2 minor	3 diminished	4 minor	5 major	6 minor	7 major	8 diminished	9 minor	10 major
C	Gm 0 0 1 1 3 4	C dim.	Dm 1 2 3	E 0 00 1 2 3 1	Cm O	A O O O O O O O O O	A dim.	Am O O O O O O O O O O O O O O O O O O O	D 1 2 3
11	12	13	14	15	16	17	18	19	20
diminished	major	diminished	diminished	diminished	major	min 3	major	diminished	diminished
C dim.	E O O O O O O O O O O O O O O O O O O	G dim. 1 1 2 3	D dim. 0 1 1 1 1 3	A dim. 1	C 1 1 2 3 3 1	E dim.	G I 1 1 2 3 4	G dim. 1 1 2 3	D dim. 1 1 1 3
21	22	23	24	25	26	27	28	29	30
major	diminished	minor	major	minor	minor	minor	minor	minor	major
A O O O O O O O O O O O O O O O O O O	D dim. 1 1 1 1 3	Gm 1 3 4	G I	Am	Em 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gm 1 3 4	Dm 1 1 2 3	Am O O O O O O O O O	D I

Bb major scale in first position

theo 1.590

Speak the note names as you play.

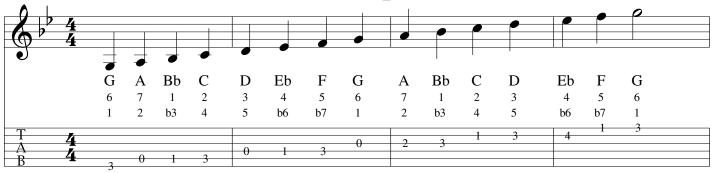


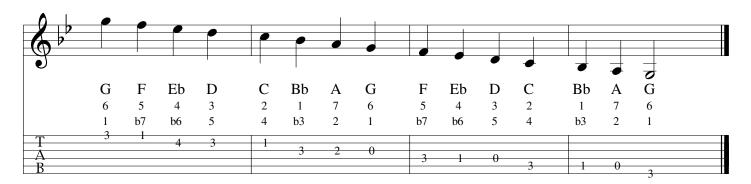


G natural minor (G Aeolian)

Speak the note names as you play.

in first position

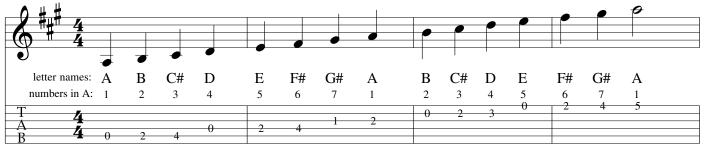


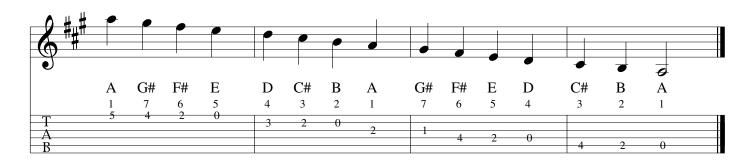


A major scale in first position

theo 1.636

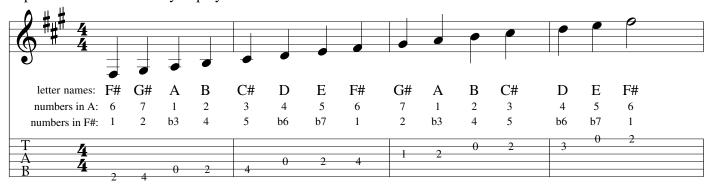
Speak the note names as you play.

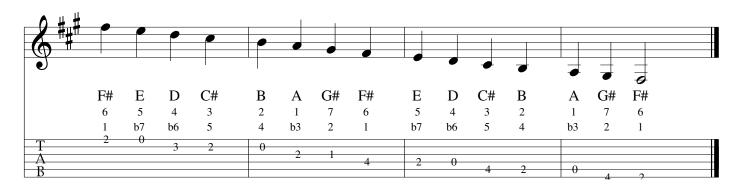




F# natural minor (F# Aeolian) in first position

Speak the note names as you play.

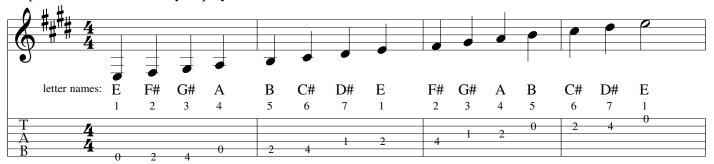


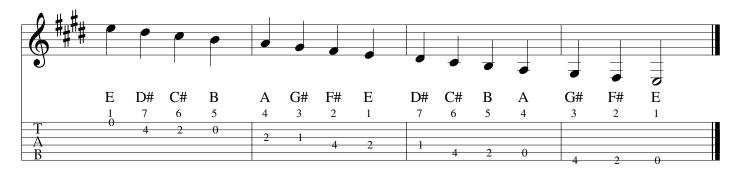


E major scale in first position

theo 1.680

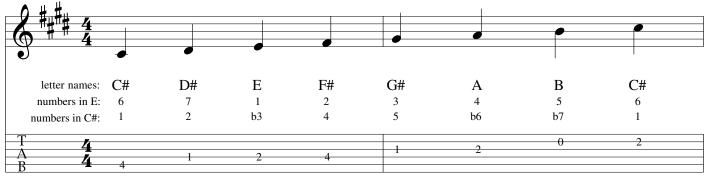
Speak the note names as you play.

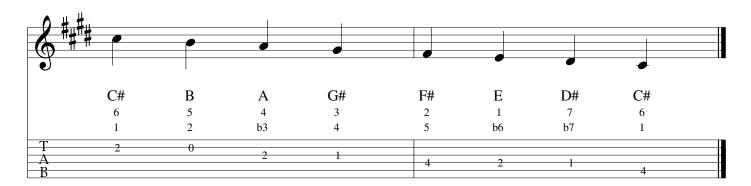




C# natural minor (C# Aeolian) in first position

Speak the note names as you play.





MAJOR SCALE INTERVALS

The major scale is familiar to most of us. At sometime in our childhood most of us had some exposure to it as the "do, re, me" scale. In the solfeggio system (solfeggio in Italian, solfége in French), the intervals of the major scale are labeled with the syllables "do, re, me, fa, sol, la, ti". Here is a C major scale, played entirely on the fifth string and labeled both with the solfeggio syllables and the numbers 1 through 7:



The example above was given on a single string to illustrate the intervals that make up the major scale. A whole step is an interval of two frets (not counting the one on which you begin). A half step is an inteval of two frets (not counting the one on which you begin).

As you can see in the example above, major scale tones three up to four and seven up to one are a half step apart. All other consecutive major scale tones (1 to 2, 2 to 3, 4 to 5, 5 to 6 and 6 to 7) are a whole step apart.

The intervals between natural notes in alphabetical order also have two half steps: B to C and E to F. In the example below, the natural notes from "A" to A" are played on the sixth string. Notice that the musical alphabet begins again with "A" after "G". All of the alphabetically consecutive notes (A to B, C to D, D to E, F to G and G to A) are a whole step apart, except B to C and E to F.

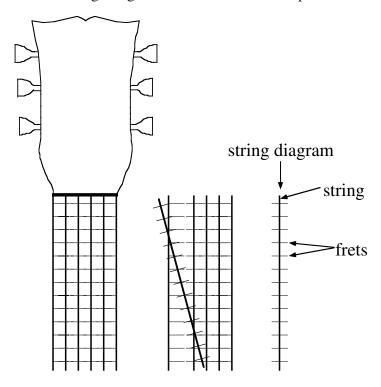


The C major scale is the only one which aligns the half steps at 3 to 4 and 7 to 1 with the half steps between B and C and between E and F. C major scale tones three and four are "E" and "F", which are a half step apart both in regard to the intervals between the letters and in regard to the intervals of the major scale. Likewise, C major scale tones seven and one (ascending) are "B" and "C", which are a half step apart both in regard to the intervals between the letters and in regard to the intervals of the major scale.

Every major scale except C major requires alteration of one or more notes to align the letter names with the major scale pattern. These alterations are called accidentals. The three common accidentals are (1) sharp, which raises a note one half step; (2) flat, which lowers a note one half step; and (3) natural, which cancels previous sharps and flats.

The symbols for accidentals are: "#" for sharp, "b" for flat and "#" for natural. In typesetting, the number symbol (#) is often substituted for the sharp, and the lowercase "b" substituted for the flat.

String diagrams will be used to illustrate the intervals between tones of the major scale and between the letter-named notes of the musical alphabet. The vertical lines each represent a string, positioned with the head of the guitar above the top end of the string image. The horizontal lines represent frets.



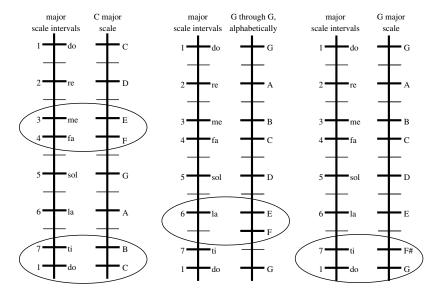
The string diagrams below illustrate the intervals of the major scale and the necessary alterations to adjust the intervals implied by the letter names of notes. Thick horizontal lines illustrate the frets at which you would play notes.



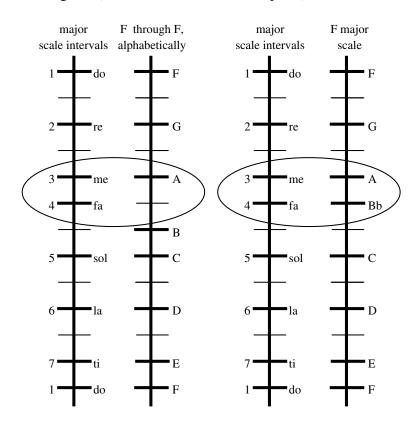
The C major scale on the string diagram below illustrates this C major scale shown in music notation and tablature above. The major scale intervals line up perfectly with the letters "C" through "C" to make the C major scale. Notice that the half step between major scale tones three and four aligns with the half step between E and F. Likewise, the half step between major scale tones seven and eight aligns with the half step between B and C.

The letters "G" through "G", however do not align to make a major scale. The "F" note of the "G through G alphabetically" diagram is one fret higher on the diagram (which would be one half step lower in pitch) than the major scale tone "7" on the "major scale intervals" diagram next to it. To correct this, F can be raised in pitch,

or sharped. Raising the pitch would place an "F#" one fret lower on the diagram (which is one fret higher in pitch).



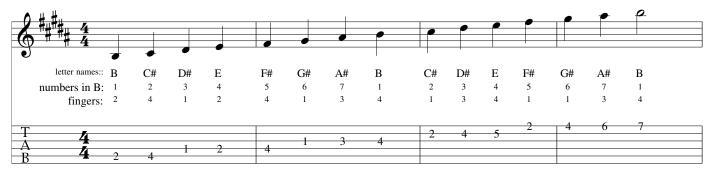
In the diagrams below, the "B" note of the "F through F alphabetically" diagram is one fret lower on the diagram (which would be one half step higher in pitch) than the major scale tone "4" on the "major scale intervals" diagram next to it. To correct this, B can be lowered in pitch, or flatted. Lowering the pitch would place a "Bb" one fret higher on the diagram (which is one fret lower in pitch).

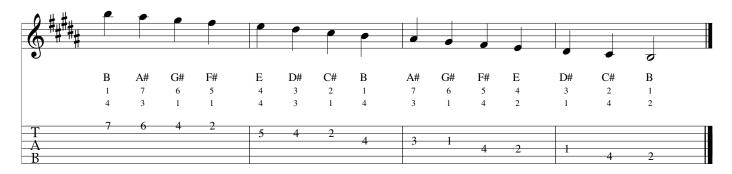


B major scale in first position

theo 1.760

Speak the note names as you play.





G# natural minor (G# Aeolian)

Speak the note names as you play.

in first position





EAR TRAINING

Become familiar with the sound of the intervals below. Changing the position in which an interval is played changes the names of the notes, but the interval remains the same.

MINOR SECOND (ALSO CALLED HALF STEP) AND MAJOR SECOND (ALSO CALLED WHOLE STEP)

Here are the fingerings for half and whole steps. Play them and become familiar with their sound. The whole step is a dissonant or disturbing interval. The half step is a very dissonant or disturbing interval.

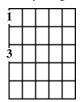
minor second on 1 string

may be on any string, at any position, with any fingers



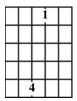
major second on 1 string

may be on any string, at any position, with any fingers



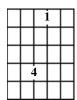
minor second on 2 strings

may be on adjacent pair of strings except NOT the second and third strings, at any position, with any fingers



major second on 2 strings

may be on adjacent pair of strings except NOT the second and third strings, at any position, with any fingers



minor second on 2 strings

the unique fingering on the second and third strings, at any position, with any fingers



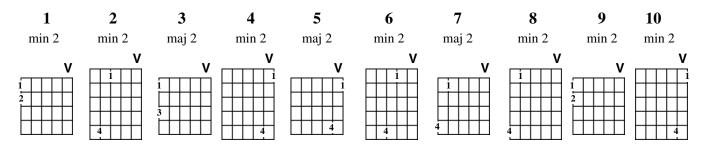
major second on 2 strings

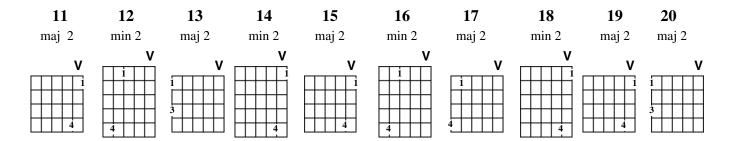
the unique fingering on the second and third strings, at any position, with any fingers



EAR TRAINING TEST 1.830

On the CD, each interval example below will be played, then identified as a minor second or major second. Listen to each example and attempt to identify the intervals before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below.

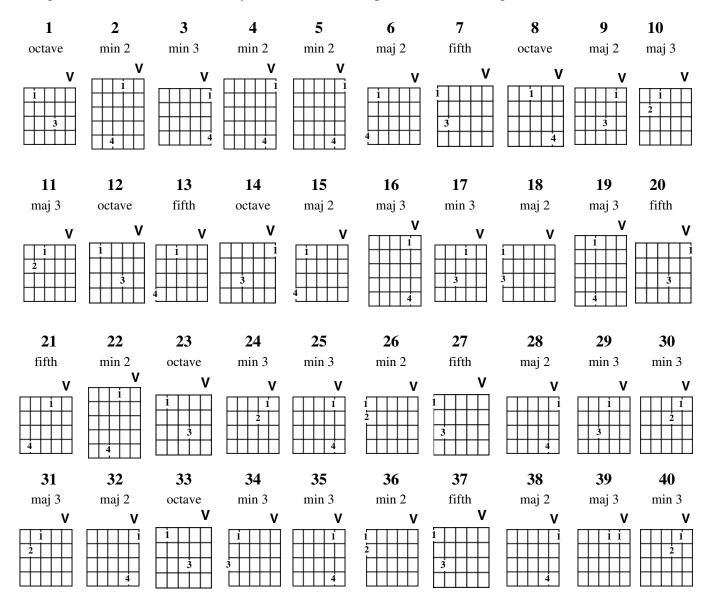




Ear Training Test 1.831

review octave, perfect fifth, major third, minor third, minor second, major second

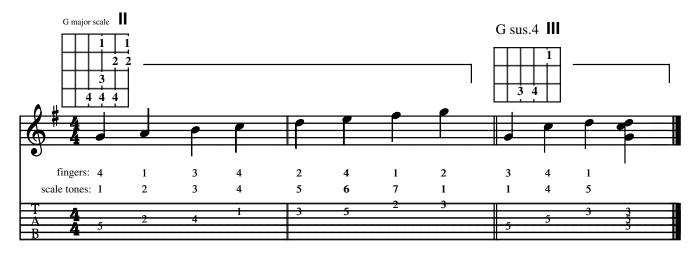
On the CD, each interval example below will be played, then identified. Listen to each example and attempt to identify the intervals before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. You may want to review the previous ear training lessons.



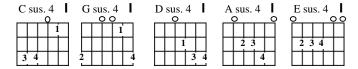
SUSPENDED FOURTH CHORDS AND ARPEGGIOS

A suspended fourth chord consists of the first, fourth and fifth tone of a major scale. Think of it as a major or minor chord with a fourth replacing the third. When a chord is played one note at a time it is an *arpeggio*. When the tones of an arpeggio are played simultaneously, they make a chord.

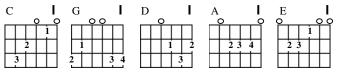
G major scale and G suspended fourth chord



these are suspended fourth chords



these are major chords



these are minor chords

Cm	- 1	Gm	- 1	Dm	1	Am	1	Em	I
0		0				_ 0		0	000
i		1			1		1		
	П		П	2	П	2 3		2 3	
3		3	4		3				

these are diminished chords

C dim.	G dim.	D dim.	A dim. I	E dim.
2 3	1	1 1	1 2	1 2
4	2 3	3		

EAR TRAINING TEST 1.833

major, minor and diminished chords

On the CD, each chord example below will be played, then identified. Listen to each example and attempt to identify the major, mnor, diiminshed and suspended fourth chord quality before the anwer is given. If you find this too difficult, listen to the CD while reading the answers below. You may want to review the previous ear training.

1	2	3	4	5	6	7	8	9	10
sus. 4	minor	sus. 4	major	diminished	major	sus. 4	sus. 4	sus. 4	diminished
E sus. 4 0 0 0 0 0 0 0 0 0	Am O O O O O O O O O	C sus. 4	D 1 2 3	C dim.	C	C sus. 4	D sus. 4	E sus. 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	G dim. 1 2 3
11	12	13	14	15	16	17	18	19	20
major	sus. 4	minor	sus. 4	minor	sus. 4	diminished	diminished	sus.4	major
D 1 2 3	D sus. 4 1	Dm 1 2 3	G sus. 4 0 0 1 1 2 1 4	Gm 1 3 4	G sus. 4 0 0 1 1 2 1 4	C dim.	E dim.	G sus. 4 1	A 0 0 0 0 0 0 0 0 0
21	22	23	24	25	26	27	28	29	30
21 diminished			24 minor	25 sus. 4	26 minor	27 minor		29 major	
					-				
diminished D dim.	sus. 4 A sus. 4 O D D D D D D D D D D D D D D D D D D	major C I	minor Em	sus. 4 D sus. 4	minor Gm	minor Dm l	minor Am	major D I	sus.4 E sus. 4
diminished D dim. I	sus. 4 A sus. 4 2 3 4	major C I O O O	minor Em	sus. 4 D sus. 4 1 1 1 3 4	minor Gm I 3 4	minor Dm I O I J J J J J J J J J J J J J J J J J	minor Am I	major D I 1 2 1 3	sus.4 E sus. 4 0 0 0 2 3 4

PREPARATION FOR MAJOR SCALE CONSTRUCTION

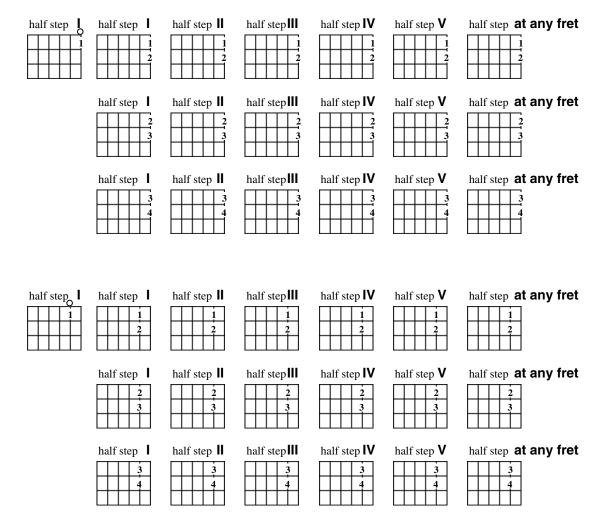
You will need to know (1) how to finger half steps and whole steps; (2) how to assign numbers to the major scale; and (3) where half steps occur in the major scale.

FINGERING HALF STEPS AND WHOLE STEPS: THERE ARE THREE WAYS TO FINGER EACH.

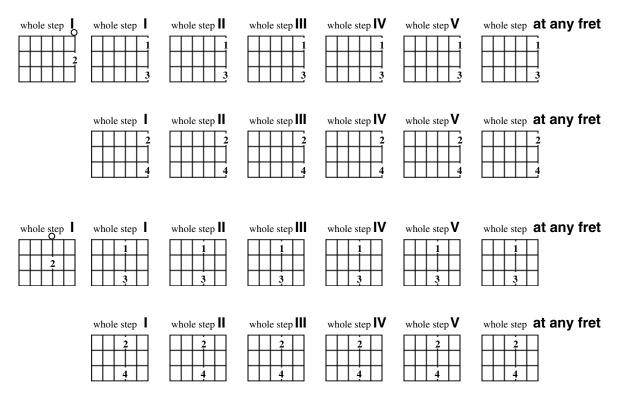
Fingering Half Steps And Whole Steps On A Single String.

On a single string, half steps are one fret apart (not counting the fret on which you begin). The half step may be fingered with any combination of fingers, but usually with two consecutive fingers.

Regardless of which single string the half step is fingered on, and regardless of which position it is fingered in (regardless of which fret at which it is played), the interval is the same.



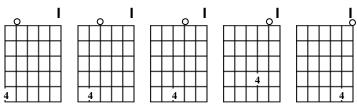
Regardless of which single string the whole step is fingered on, and regardless of which position it is fingered in (regardless of which fret at which it is played), the interval is the same.



Fingering Half Steps And Whole Steps On Two Adjacent Strings.

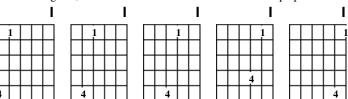
To understand half and whole steps fingered on two adjacent strings, let's look at the fingering of unisons (pairs of the same note) commonly used for tuning:

on each diagram, the two notes are the same pitch



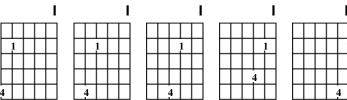
By raising the pitch of the note on the smaller string on each diagram by one fret (a half step), the interval is changed from a unision (the same notes) to a half step. Notice that these fingerings are relatively the same, except the one involving the third and second strings is unique.

on each diagram, the two notes are an interval of a half step apart



By raising the pitch of the note on the smaller string on each diagram by an additional half step (raised two frets or one whole step from the open string), the interval is changed to a whole step. Again, these fingerings are relatively the same, except the one involving the third and second strings is unique.

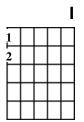
on each diagram, the two notes are an interval of a whole step apart



THE THREE FINGERINGS FOR EACH INTERVAL

half step on one string

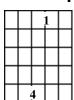
may be on any string, at any position, with any fingers



half step on two strings

may be on adjacent pair of strings

except NOT the second and third strings,
at any position,
with any fingers (as long as you can reach!)



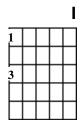
half step on two strings

the unique fingering on the second and third strings, at any position, with any fingers



whole step

may be on any string, at any position, with any fingers



whole step on two strings

may be on adjacent pair of strings

except NOT the second and third strings,
at any position,
with any fingers (as long as you can reach!)



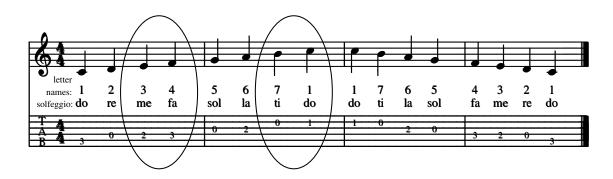
whole step on two strings

the unique fingering
on the second and third strings,
at any position,
with any fingers



Numbering The Major Scale Tones

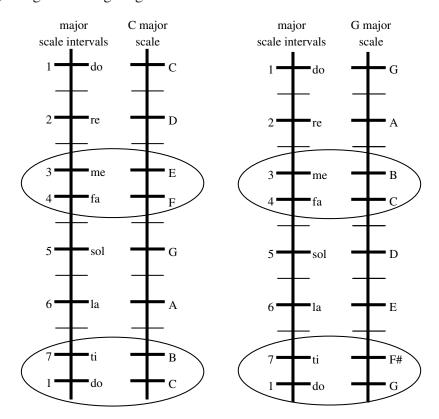
In the solfeggio system, the intervals of the major scale are labeled with the syllables "do, re, me, fa, sol, la, ti". Here is a C major scale, played in the first position (with the first finger at the first fret) and labeled both with the solfeggio syllables and the numbers 1 through 7:



RECOGNIZING THE LOCATION OF THE HALF STEPS IN THE MAJOR SCALE

In making up major scale fingerings, you should think of the notes by number, one through seven. Be aware that the half steps (one fret intervals) occur between numbered major scale tones 3 and 4 and between 7 and 1 (ascending in pitch). These scale steps are circled in the example above. The remaining steps of the major scale are whole steps apart, which include the intervals between the following pairs of numbered scale tones: "1 to 2", "2 to 3", "4 to 5", "5 to 6" and "6 to 7".

The intervals between the numbered tones of the major scale were illustrated earlier in the section on Major Scale Intervals, using the "string diagrams" shown below.



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CONSTRUCTING MAJOR SCALE FINGERINGS

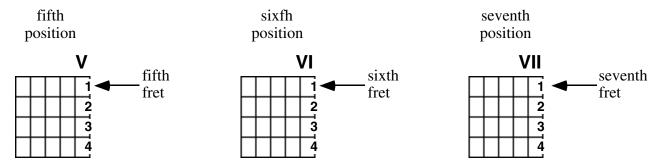
You must know the information in the previous section: *Preparation For Major Scale Construction* to effectively study this section.

After studying this section, you should be able to begin a major scale at scale tone "1" with the index, middle or little finger of your fretting hand on strings six and five and with the index finger on string four.

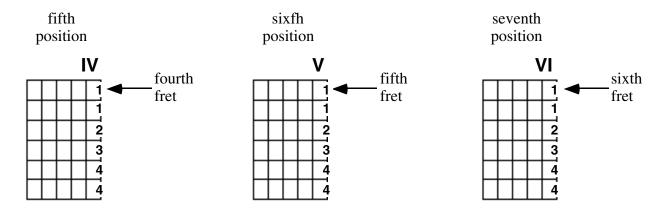
Review "Strict Vertical Position" (primarily for single note playing)

Position is numbered after the fret at which your index finger is placed. In that position, the other three fingers are assigned one of the next three frets in-a-row toward the body of the guitar. In other words, each of the four fingers are assigned to one of four consecutive frets.

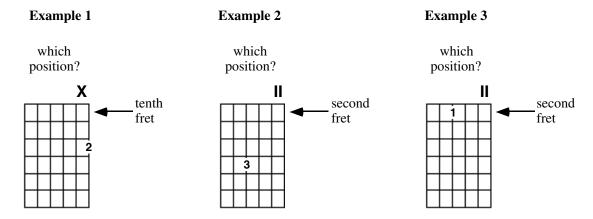
The examples below show the first string. The position numbers would be the same, regardles of which string the fingers were placed upon.



You can also reach one fret out-of-position with the index and little fingers:



So.....what position are each of these examples (example 3 has two answers)?

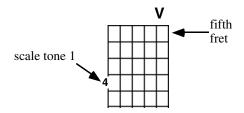


Example 1: eleventh position. Example 2: third position. Example 3: second OR third position. :SJAMSUR

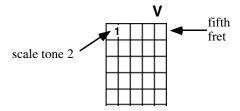
BEGINNING A MAJOR SCALE FINGERING FROM THE LITTLE FINGER ON THE SIX STRING

Be careful not to change position. Position was defined earlier in this lesson.

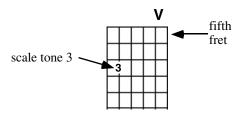
Let's start in fifth position. Play the note at the sixth string, eighth fret and think of it as scale tone one:



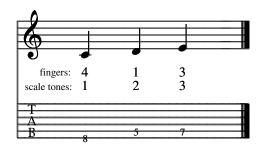
The interval from scale tone one to scale tone two should be a whole step. According to the fingering for a whole step shown in the previous section, a whole step above step one would be here:



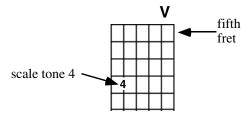
The interval from scale tone two to scale tone three should be a whole step. According to the fingering for a whole step shown in the previous section, a whole step above step two would be here:



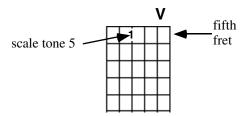
So far, you should have played this:



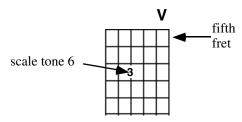
The interval from scale tone three to scale tone four should be a half step. According to the fingering for a half step shown in the previous section, a half step above step three would be here:



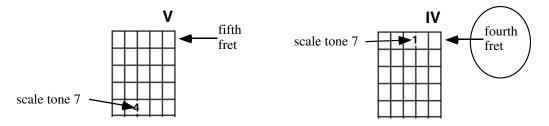
The interval from scale tone four to scale tone five should be a whole step. That would be here:



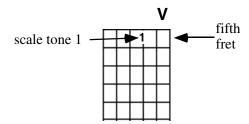
The interval from scale tone five to scale tone six should be a whole step. That would be here:



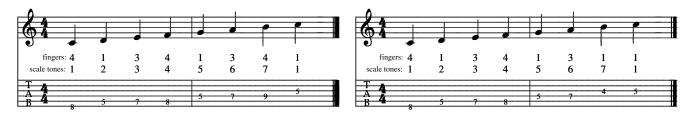
The interval from scale tone six to scale tone seven should be a whole step. According to the fingering for a half step shown in the previous section, that presents two options:



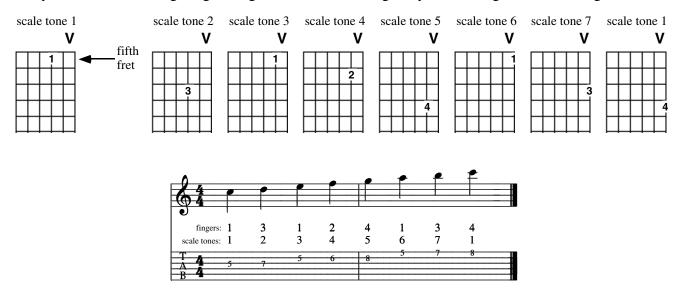
The interval from scale tone seven up to scale tone one should be a half step. If you chose the first finger option in fingering scale tone seven, be careful not to change position.



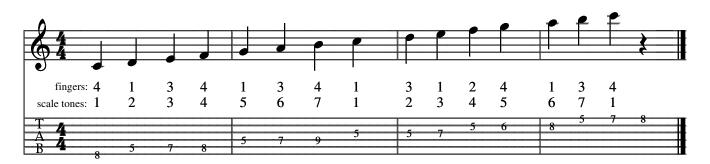
You should have come up with one of these fingerings. The first version uses the little finger for scale tone seven, while the second version uses the little finger for both scale tones seven and one.



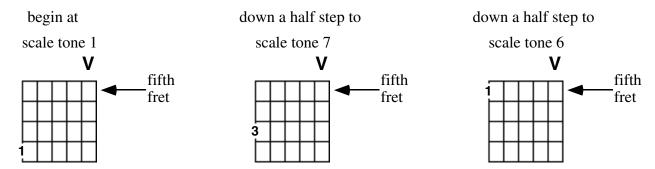
If you continue the fingering through the next octave higher, you should get the following:



Here is the entire two-octave fingering you have made:



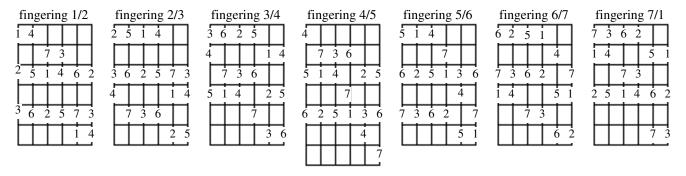
Now begin the fingering again at the sixth string, eighth fret, scale tone "1" and descend as far as the position permits:



I number major scale fingerings according to the number of lowest note fingered with the index finger on the sixth string. The fingering you have just made, is called *major scale in-position fingering 6*. Other fingerings called *three-note-per-string major scale fingerings* use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale tone numbers shown in parenthesis are options, where the same note can be fingered on the second string. *major scale in-position fingerings*

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
reach with	reach with	no	reach with	reach with	reach with	no
index finger 1 4 5 1 7 3 2 5 1 4 6 2 3 6 2 (5)7 3	index finger 2 5 1 4 6 2 3 6 2 5 7 3 4 1 1 4 7 3 6)	reaches! 3 6 2 5 7 3 4 1 4 7 3 6 5 1 4 2 5	index finger 4	index finger 5 1 4 2 5 7 7 6 2 5 1 3 6 7 3 6 (2) 7	1 ittle finger 6 2 5 1 3 6 7 3 6 2 7 7 4 5 1	reaches! 7 3 6 2 7 1 4 5 1 7 3 3 2 5 1 4 6 2

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Here are the three-note-per-string major scale fingerings:



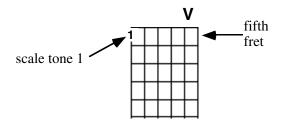
Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

Let's get back to constructing in-position fingerings.

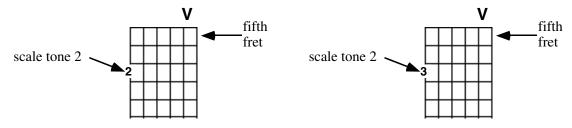
BEGINNING A MAJOR SCALE FINGERING FROM THE INDEX FINGER ON THE SIX STRING

Be careful not to change position. Position was defined at the beginning of this article.

Let's start in fifth position. Play the note at the sixth string, fifth fret and think of it as scale tone one:

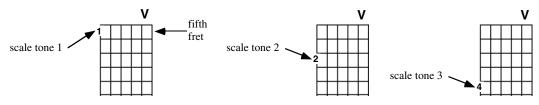


The interval from scale tone one to scale tone two should be a whole step. You may use the second or third fingers. If you use the second finger, you are in sixth position. If you use the third finger you are in fifth position.

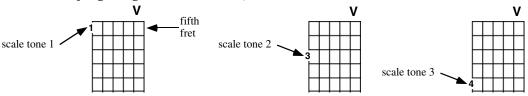


Using either the second or third fingers for scale tone "2", you could use the fourth finger for scale tone "3". This is shown in options 1 and 2, below

fingering scale tones "1", "2" and "3" with OPTION 1



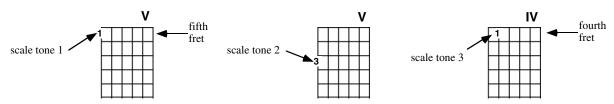
fingering scale tones "1", "2" and "3" with OPTION 2



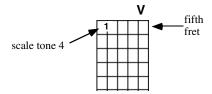
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If you used the third finger for scale tone "2", there is another option for scale tone three:

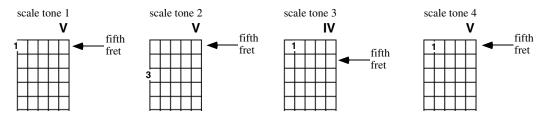
fingering scale tones "1", "2" and "3" with OPTION 3



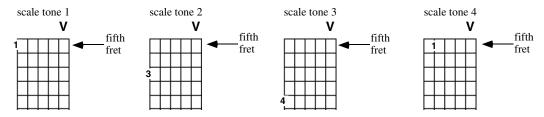
The interval from scale tone three to scale tone four should be a half step. Regardless of which option you used in fingering scale tones "1", "2" and "3" (see above), scale tone four would be fingered the same:



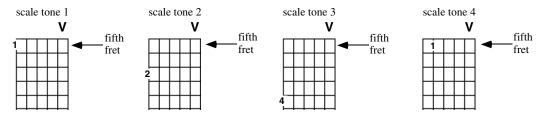
Using option 3 for scale tones "1", "2" and "3" presents a problem in fingering two consecutive notes with the same finger, which can make it difficult to play through the scale quickly:



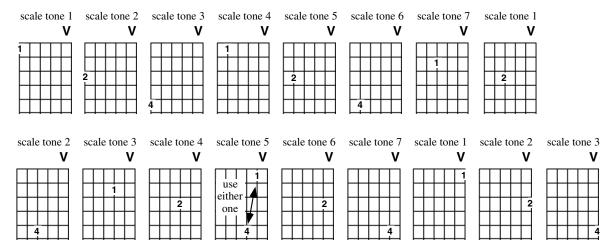
Using option 2 for scale tones "1", "2" and "3" presents another problem in reaching scale tone "3" with the little finger, which can also make it difficult to play through the scale quickly:



Using option 1 for scale tones "1", "2" and "3" is best to play through the scale quickly. Remember, this choice has established your fingering as being in sixth position, with the index finger reaching out-of-position to the fifth fret and with the little finger reaching out-of-position to the ninth fret.



Continuing to construct the scale in sixth position would produce the fingering shown below.



Since the lowest pitch fingered on the sixth string with the index finger is scale tone "1", this is called *major scale in-position fingering 1*. You should now try to construct all seven of the major scale in-position fingerings, which were shown earlier in this article.

GUITAR CARE

TUNING

Precise tuning is essential to good music and for your development. Tuning is accomplished by comparing a note suspected to be out of tune to a "reliable" tuning source such as a tuning fork, an electronic guitar tuner, or a musical instrument which is in tune and can produce a steady, sustained pitch.

Tuning with a tuning fork. Hold the handle without touching the "u-shaped" portion and tap the fork with a snap of the wrist on something hard (careful not to bend the fork). Without touching the fork to the guitar, position the "u-shaped" portion parallel to, and close to, the guitar pickup to amplify it. If you are using an acoustic guitar or can't amplify the tuning fork with the guitar pickup, touch the base of the handle to a resonating object such as a wooden guitar top, a table, or to the bone where your cheek meets your ear. It is preferable to hear the tuning fork and the string being tuned at the same time.

Tuning with electronic tuner. If you have a choice, use a tuner with a stable sweep meter. Tune each string exactly to the "0" mark. An electronic tuner is the most accurate method available to you, so take advantage of it. Remember to double check all of the strings once you have tuned them.

Tuning to another musical instrument. It is preferable to tune to a musical instrument which has a pure tone (without complex harmonics), such as a flute, or to a harmonic on a string instrument. If you are tuning to a synthesizer, select a "voice" or "patch" on the synthesizer that is similar to a flute in sound. Carefully balance the volume between your guitar and the other instrument.

Tune to the fifth string ("A") first. Larger strings are less likely to go out of tune. The sixth string tends to be less stable than the fifth because (1) being lower in pitch, it doesn't produce as steady a tone and (2) being on the edge of the fretboard, it is more subject to change caused by twisting of the neck.

Tune up to the note. This prevents the string from slipping on the tuning machine post.

Listen to the "beating.". Bring the string's pitch up gradually, but continuously. When it gets close to the correct pitch, you should be able to hear a rapid pulsing or beating sound (if not, perhaps you've heard too much loud music!). This sound is the difference in speed of vibrations between the string and the tuning source.

Once you are in close proximity to the correct pitch, the beating sound will slow down as you approach the pitch of the tuning source and speed up as you move away from it. Turn the key on the tuning machine slower as you approach the desired pitch. You may pass the pitch if you don't pay close and continuous attention to the decreasing speed of the beating, in which case the beating will gradually start to speed up again. Once you grow accustomed to this tuning method, you will be able to bring the pitch up more rapidly. Try to tune close enough so that the beating is slowed to less than one beat per second.

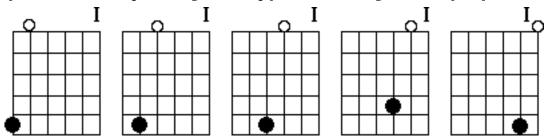
Tune all of the strings, then check all of them again. On most guitars, the neck actually bends as you tune the strings which tends to put other strings out of tune as you tune a single string. You will often need to "triple check" your tuning.

Tuning With Fretted Notes and Open Strings.

This traditional tuning method is easiest to memorize. It is fairly accurate, but error can accumulate by the time you tune all six strings.

Pressing too hard can sharpen the note out of tune. Press the string down just to your left of the fret, just hard enough that the string doesn't buzz on the fret you are fingering. Part of the fingertip may lay over the fret, but not so much as to mute the string. Turn the tuning machine keys with the right hand, so the left hand can sustain the note (or notes) it is fretting.

Tuning with fretted notes and open strings. The top fret on each diagram is the first fret.



The top horizontal line in first position fretboard diagrams represents the nut. The top horizontal space is the first fret. In fretboard diagrams, the fret is the line at the bottom of each horizontal space, as noted earlier in *Fretboard Diagrams*.

Stretch out new strings well during the first time you tune them, to lessen the number of times you'll have to tune all of the strings

Tuning All Strings Relative To the Fifth String (illustrated on the next page)

The fifth string is usually least prone to going out of tune. It is a large string, less likely to stretch. The fifth string is less likely to be affected by twisting of the neck, as are the first and sixth strings. This tuning method is quite accurate, since it continually references the fifth string.

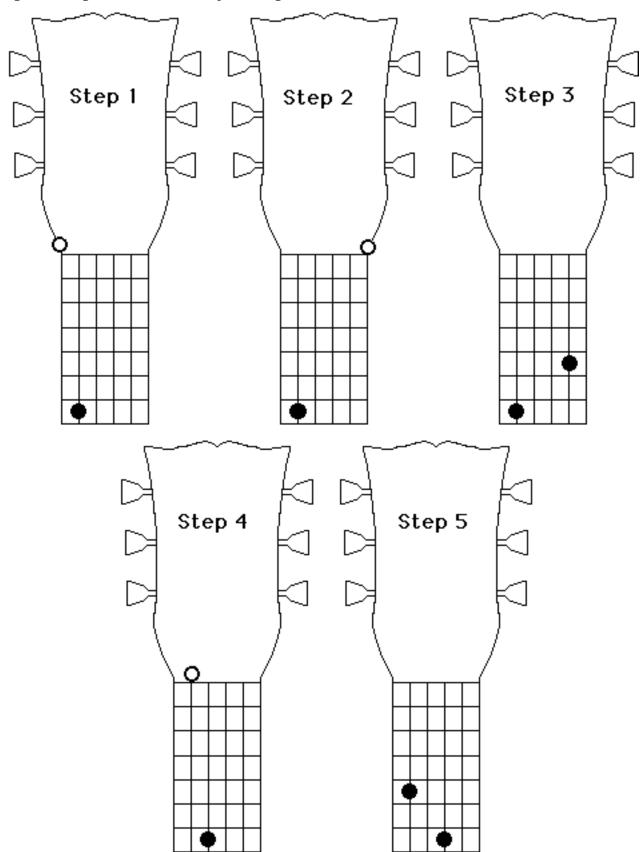
Before proceeding, tune your fifth string to a reliable source, as described earlier.

- Step 1 tunes the sixth string open "E" to a fretted "E" on the fifth string.
- Step 2 tunes the first string open "E" to a fretted "E" on the fifth string.
- Step 3 tunes a fretted "E" on the second string to a fretted "E" on the fifth string.
- Step 4 tunes a fretted "A" on the fourth string to the fifth string open, "A".
- Step 5 tunes a fretted "D" on the third string to a fretted "D" on the fifth string.

Steps 3 and 5 require fretting notes with the left hand while reaching across to the tuning pegs with the right hand. This can be a little awkward, but is well worth the effort.

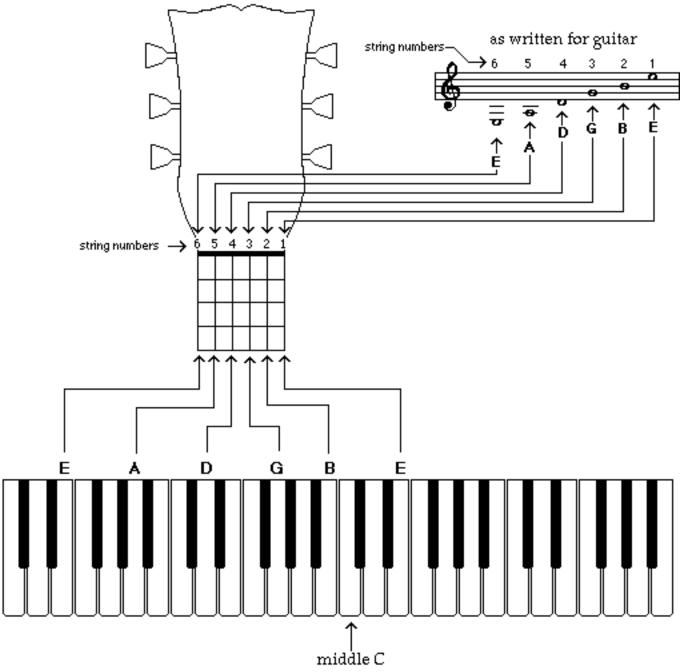
As you proceed from *Step 1* through *Step 5*, it is likely that the strings will loosen and drop in pitch. Tune your fifth string to the source again and retune all of the strings. If your guitar has a floating tremolo system, you may have to tune a few times.

Tuning All Strings Relative To the Fifth String



TUNING THE GUITAR TO THE PIANO

OPEN (not fretted) STRINGS



(in the center of the piano keyboard)

INTONATING THE BRIDGE

(adjusting your guitar's bridge to correct the string lengths in relation to the fretboard)

Use a guitar tuner equipped with a meter. Tune the guitar fairly well. Play the twelfth fret harmonic on one string and note the exact reading on the meter (the needle doesn't have to be exactly on the "0" mark). Next play the fretted note on the twelfth fret on the same string. If the fretted note was flat, adjust the individual bridge piece to make the string shorter. If the fretted note was sharp, adjust the individual bridge piece to make the string longer. Repeat the process until the fretted note and harmonic at the twelfth fret are exactly the same. This may take a few minutes for each string, but it is well worth the time. Before adjusting another string, always check the tuning of all the strings. Adjust your bridge every month if you can. Re-check the bridge if you change string gauge or if the trussrod or tilt of the neck is readjusted.

CHANGING STRINGS

Change your strings at least once every six weeks or as often as once a week if the strings get very oxidized (watch for "crud" and discoloration of the strings). Never remove more than three strings at a time and never remove more than two of the larger strings (fourth, fifth and sixth) at a time. The change in tension may affect the neck adversely.

Slip the end of each new string through the slots or holes in the bridge and/or tailpiece, except with a Floyd RoseTM Tremolo system, where you would cut off the end of the string and insert in the vice slot (some strings now come with pre-cut soldered ends, making this step unnecessary). Slip the end of the string through the hole or slot on the tuning machine post.

Measure about five to five and one half inches slack (one hand width) in the string at the twelfth fret. Once you have measured the slack, bend the end of the string ninety degrees (an "L" shape) at the point where it passed through the tuning machine post, bending it opposite the way the string will wind around the post as it is tuned. Keeping the slack pulled up so that the bent part of the string is taut against the post, grab the loose end of the string and pull it tightly around the post opposite the direction the string winds around it. Keep each winding underneath the portion of string running from the neck to the tuning machine.

It is preferable to have two or three windings around the string post of the sixth string, progressing to five or six windings around the first string's post. Windings should not overlap. Once the post is full of windings, more turns will tend to strip the gear inside the tuning machine. Get accustomed to the proper length of slack for each string on a particular guitar.

Pulling the string tightly against the post, bend it over the portion of the same string running from the neck to the tuning machine. Taking up the slack so the string winds below itself on the post, tighten the string. Once the string is not flopping around, start tuning it. Stretch the string with both hands every six inches to remove excess elasticity. Pull only an inch or two away from the fretboard on the first two strings to avoid breaking them.

Once you've installed all six strings, stretch them all again, tune, stretch again, until the strings stay in tune. The new strings should sound great and stay in tune now!

RELAXATION, POSTURE AND ATTITUDE

RELAXATION

The shoulder, forearm, wrist and hand should be loose throughout. For maximum efficiency, use only as much muscular tension as is necessary for a technique. All the parts of your arms and hand that need not be involved in the performance of a technique should be relaxed and flexible, moving only sympathetically. Excess tension will decrease your speed and accuracy. Analyze your technique to make sure the habits you develop contribute to your control. Develop your personal technique as you discover the unique way your physiology works.

MASSAGE AND STRETCHING

Massage and stretching should be applied particularly to the fretting hand, since more dexterity is usually required in that hand.

- Allow both hands to dangle at your side. Shake them briskly to loosen up the hands and arms AND lubricate the joints.
- Relax the hand to be massaged. Stretch each adjacent pair of fingers apart to loosen the webbing between them.
- Sit down and lay your massaged hand palm-up on your thigh. Make a fist with your free hand and massage the palm with the knuckles of the free hand in circles about one inch in diameter. Using the thumb and fingers of your free hand, gently squeeze all the muscles and bones in the palm of the massaged hand to relieve tension.
- Wrap the thumb and fingers of the free hand around a finger of the massaged hand. Massage in a tubular fashion, squeezing the finger while moving up and down it and twisting around it. Include the thumb of the massaged hand.
- Bend the left arm at the elbow and touch the elbow to your ribs. Rotate the left hand clockwise and touch its knuckles to your left collarbone. Cover the back of your left hand with your right palm and use the right hand to gently turn the left hand even further clockwise. Use enough pressure to cause a slight discomfort in the left wrist. Repeat with the opposite arm. When done daily, this increases the flexibility of the fretting-hand wrist and greatly aids in quick chord changes and in changing from the "bending" position to the "classical" position. Descriptions of these two positions follow in the sections on fretting technique.

AVOID INJURY FROM REPETITIVE STRESS DISORDER

Carpal Tunnel Syndrome

The *carpel tunnel* is the area of your wrist beneath the muscles at the heel of your hand. It contains nerves and tendons which control the movement of your hand. Repetitive movements (such as playing guitar) can irritate the tendons and cause them to swell, which in turn irritates the nerves. Movements made with the wrist bent are particularly irritating and should be avoided. Like the strings on a marionette, the tendons manipulate the fingers. Once the tendons swell, they have a problem fitting through the carpal tunnel and are irritated even more, hence the term carpal tunnel syndrome.

Tendonitis is a general term referring to a chronic irritation of the tendons (another repetitive stress disorder). It is a symptom of carpal tunnel syndrome and of other irritations. When you experience any discomfort or pain in your hands during guitar practice use the following remedies:

- concentrate on relaxing any muscles that are not involved in the technique
- think about your posture (see below)
- take a short break to relax your mind and body
- massage and stretch the hands and arms
- breathe deeply throughout your practice: oxygen is great for the brain and body
- change to a different exercise

Some physicians might prescribe corticosteroid injection or surgery for repetitive stress disorders, but these treatments should only be used in extreme situations when all other alternatives have failed. Most problems can be solved with the checklist above. If they do not suffice, try professional massage, osteopathic treatment or take a Yoga or other stretching class.

Be aware of physical or mental fatigue. Mental fatigue can cause physical fatigue and vice-versa. Here is a fatigue checklist:

"I may be fatigued because".....

- I'm not using good posture (see section below).
- I've been playing long enough for now and I need a break.
- I'm upset about something, and I need to do something first before practicing (sit and relax for a few minutes, take a walk, make a phone call, etc.).
- My body hurts and I need stretching, massage and a break.
- I'm holding my breath while I play, instead of breathing deeply.
- This exercise is irritating me and I need to do another one, play something fun for a few minutes, or take a break.

POSTURE AND HOLDING THE GUITAR

Always sit or stand with posture that provides free movement of your forearms, hands and fingers. Holding the head of the guitar above shoulder height allows the tendons in your fretting arm to loosen. Holding the head of the guitar too high can require too much bending in the picking wrist and tightens the tendons in the picking arm. Feel your body. Concentrate on relaxing the areas where you feel tension.

A Posture Checklist

- avoiding bending the wrists by keeping the head of the guitar away from the left shoulder.
- avoiding bending the wrists by keeping the head of the guitar elevated to about 45° from the floor.
- keep the elbow on the fretting hand arm near the side, except when fretting extremely wide spans or when barréing with the ring or little fingers.

- when you sit and play guitar, it is preferable to use a chair height which allows the thigh on the fretting hand side to be parallel to the floor.
- when you sit and play guitar, it is preferable to elevate the foot on the fretting hand side so that the knee is three to eight inches above the hip (more for a taller person) and place the guitar on the left thigh. If this causes discomfort in the lower back, avoid it (or do stretching for your lower back).
- if you find yourself bending over while playing in a seated position (which may be because you have a long torso), try using a lower chair to position the leg on your fretting hand side so the knee is higher than the hip by an inch or two.
- if you find it difficult to reach over the guitar with your fretting hand while playing in a seated position (which may be because you have a short torso), try using a higher chair to position the leg on your fretting hand side so the knee is lower than the hip by an inch or two.
- keep the fretting hand positioned with the base of the little finger very close to or touching the bottom edge of the fretboard except when fretting extremely wide spans (especially those on the first string, lesser on the second string, etc.).

ATTITUDE

The fastest way to advance as a guitarist is to get into the habit of playing daily.

One of my students told me about this great idea he was taught by Howard Roberts (the jazz guitarist who was one of the founders of the Guitar Institute of Technology in L.A..

Howard said, "get an egg timer and set it for five minutes the next time you practice. Then stop practicing." Jeff said, "what??, I don't get it!" Howard continued, "then, if you feel you're up to it set it for six minutes the next day. Increase it by one minute every day, only if you feel you're psychologically up to it. You should be anxious to practice." I thought this was a great idea.

Combine play and practice. You should practice a combination of fun stuff and hard work. If you don't enjoy it, you won't find it easy to do regularly. In the early months of your practicing, play something you know well for five or ten minutes, so you feel good about your playing. Then *focus* for two or three minutes and work up a sweat. Alternate back an forth. By *focus*, I mean complete attention to what you are studying: no distractions no indecision about whether you want to do this or not. You should choose the things you practice so they are applicable to what you want to play, so they are psychologically rewarding.

Develop your ability to focus for longer periods and more often during your play/practice sessions. After a few months you may be able to focus for ten or fifteen minutes at a time *and enjoy it*. A seasoned professional musician can play for a half hour to an hour at a time with complete concentration. It is incredible what you can accomplish in one hour with complete focus.

GENERAL PICKING TECHNIQUE

Wrist And hand Position For The Picking Arm

The upper forearm should serve as an "anchor" point against the upper edge of the guitar. The wrist should be slightly bent unless you are using part of the hand to mute. The fingertips, side of hand (from the base of the little finger to the wrist), heel of hand, and thumb should brush against the strings, bridge or body of the guitar to judge distance.

Many players rest the "pinky" side of their hand (between the little finger and the wrist) on the bridge while picking. While this provides stability for the picking hand, it sacrifices the tone variation usually available by picking closer to the neck for bass tones or closer to the bridge for treble tones.

Wrist Sweep, Forearm Rotation And Elbow Sweep

Wrist Sweep. A sweeping, continuous down-up motion of the wrist is used for strumming chords and picking single notes. Here is an exercise to familiarize you with this motion:

- Move your hand side to side with the same movement as if your hand were palm-down on a table.
- Mute the strings with your fretting hand and strum down-up alternately on two or three strings as a group; as you would a three note chord.
- Gradually widen the stroke until you are strumming on all six strings.

Note that when strumming alternately down-up on four to six strings, the wrist movement is so wide that it involves a distinct forearm rotation (view the protruding wrist bone nearest the thumb). The weight of the hand will aid the motion of the hand in strumming.

Most players involve a slight forearm rotation in playing single notes. At the fastest rates of picking single notes, most players use a controlled muscle quiver in the forearm rotation.

Holding The Pick

There are many ways to hold a guitar pick. In the most traditional method, hold the pick between the side of the tip segment of the index finger and the flat surface of the thumb (opposite the thumbnail). Try to extend the tip of the pick less than a quarter of an inch from the thumb for fine control (many players prefer less than an eighth of an inch). Bend the first finger so its tip points toward the base of the thumb. Holding the pick in this manner should allow light pressure between the thumb and first finger.

Experiment and see what is comfortable and effective. For single-note playing, I usually hold the pick between the tips of the thumb, index and middle fingers. This gives me fine control over the pick and allows removal of the index finger for picking hand tapping. For strumming, I usually hold the pick between the side of the tip segment of the index finger and the thumb.

The Position Of The Pick

Usually, you should position the pick in a plane perpendicular (90°) to the surface of the strings (or to the guitar top), so it will glide equally well over the strings during downstrokes and upstrokes. This makes it

easier to move the pick from one string to another. It also causes the strings to vibrate parallel to the frets, providing maximum clearance and minimum buzzing. There are special situations, however, where you should tilt the pick toward or away from the floor:

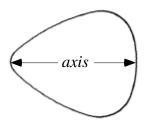
- (1) when picking the first note down on each of four or more strings, tilt the base of the pick toward the floor and:
- (2) when picking the first note up on each of four or more strings, tilt the base of the pick away from the floor and:
- (3) when picking all downstrokes or all upstrokes to intentionally cause the strings to vibrate against the frets and buzz (typically in an accented phrase).

Pluck the strings with the tip of the pick produces a purer tone than either of the long edges of the pick, which produce more "scratchy" or "breathy" tones.

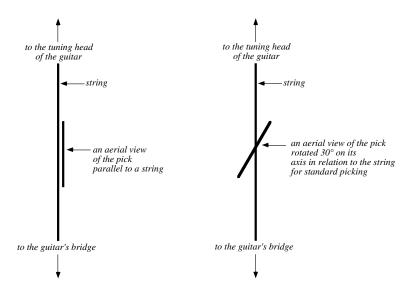
Rotating The Pick On Its Axis

To produce the purest string tone, rotate the pick on its axis so the flat surface of the pick is parallel to the length of the string. Ideally, the tip of the pick should not move past the underside of the string (nearest the guitar body), moving just close enough to the guitar body to get alongside the string.

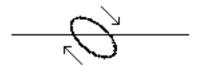
By rotating the pick on its axis to make it less parallel to the length of the string, you produce a more percussive, "breathy" or "scratchy" tone. When the pick is rotated slightly out-of-parallel position with the string, the tone becomes breathy. As the pick is rotated more out-of-parallel position with the string, the tone becomes more scratchy.



Rotating the pick on its axis to make it less parallel to the length of the string by about ten to fifteen degrees makes it easier to judge the distance between your pick and the guitar body, and therefore allows you to "glide" over the surface of the strings while picking.



Circle picking is a refined alternative to picking from the wrist. It involves very small, controlled movements in the fingers. To get the basic feeling of this technique, draw a straight line on a piece of paper, hold a pen or pencil between your thumb and index finger as you would hold a pick, and draw little clockwise ovals around the line at this angle:



Then try picking down-up on one string with the same movement. Bend the wrist to move the oval path from one string to another (to change the string you are picking on). Circle picking is only practical at slower rates of picking notes.

STYLES OF PICKING

The seven styles of picking are downstroke, upstroke, alternate, rhythmic, sweep, economy and inside.

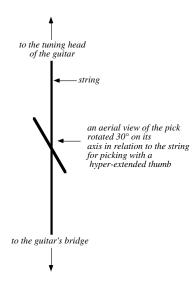
1. Downstroke Picking

This provides melodic emphasis and is often used in simpler guitar froms such as traditional blues and fifties rock. You will find it to be the easiest sytle of picking, unless you began playing with a predominant upstroke (see upstroke picking, below).

Upstroke Picking

Most players have a predominant downstroke and tend to start phrases (continuous rhythmic group of notes) with a downstroke. Some players developed a predominant upstroke, often because they liked the tone.

The common position of the pick in regard to the position on its axis is such that the end of the pick nearest the bridge is up and the end nearest the neck is down. Many of the predominant upstrokers that I have seen have the type of thumb that curves back at the tip toward the thumbnail. Let's call this a *hyper-extended* thumb. This hyper-extended thumb shape makes it easier to position the pick on its axis as shown below.



Either position of the pick can work, but be aware that the more the pick is rotated on its axis *away* from being parallel to the string, the more it scrapes the string, changing the tone.

Open-String Picking Exercise

Play this exercise with all strokes in the same direction, preferrably downstrokes. If you have a predominant upstroke, it may be better to try to make a change to predominant downstroke, since most guitar styles are played with predominant downstrokes.



GENERAL FRETTING TECHNIQUE

FRETTING-HAND POSITIONS

The fretting hand can go through infinite forms. Any particular chord is ideally fretted with a slightly different hand form to accommodate what is played immediately before and after it. Every phrase of notes or chords requires that the hand move a little differently. For any particular phrase, each guitar player has their own unique and ideal way to perform the fretting. I'll discuss a few basic forms below.

Classical Wrist Position

For wide spans in scales, arpeggios and chords, use the classical guitar wrist form. With the ball of the thumb on the center of the back of the neck (opposite the third and fourth strings), bend the wrist to turn the fretting-hand palm towards the forearm and spread the fingers.

To protect the fretting wrist is essential that the head of the guitar be kept high with this wrist position. Keep the head of the guitar raised enough that the neck is at 45° or more to the floor.

Bending Position

Although you may not be bending notes (stretching one or more strings up and down a fret) for a while, you should start getting used to the form. It will also be useful in understanding the compromised position, which should be your most common fretting-hand position for now.

Keep the elbow against or close to the body. Bend the fretting-hand wrist to move the back of the hand towards the forearm slightly (30° to 45°). If you have trouble imagining this bending of the wrist, put your fretting hand palm right in front of your face and bend the hand away from you at the wrist, without moving the forearm.

Keep the base of your first finger touching the bottom of the fretboard and your thumb high enough that it is easily visible from the front of the guitar (see photos or videos of Hendrix, Clapton, Van Halen or Vai, etc. in performance). The fingers should be angled in such a way that the base of the index finger is one or two frets toward the head of the guitar from the tip of the finger. The bottom of the fretboard should be in line with (close to) the base of the index finger at one end of your hand, and at a point halfway between the base of the little finger and the heel of the hand.

The Circular Or "V" Shape

The two extremes of the shapes the fretting hand thumb and index finger form are a circle or "v". When fretting notes on the smaller strings, the thumb and index finger form a circular shape. When fretting the larger strings and especially when barréing, the thumb and index finger are in a "v" shape.

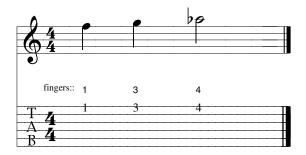
"Choreographing" Your Fretting Hand Movement

Think of your fingers as dancers. Think of the places they fret notes as resting points in a dance. The fingers should work together gracefully. When they fret a chord where all of the notes are to be strummed at once, they need to move from their previous position in such a manner that they all arrive at their fretting points at precisely the same time.

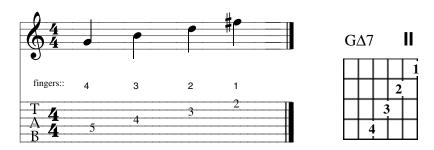
When the fretting fingers play a sequence of single notes, the sequence forms a path. Each group of a

few consecutive notes (three to six, typically) moves through some sort of a path. Whatever the path is, move gracefully through it.

Consider a short phrase of three notes ascending the same string, using your index, ring, then little fingers. Think of fretting the three notes similarly as you would a chord, but don't fret them all at once. Instead, make a "wave" motion through the fretted with your fingers. "Hover" your fingers over the frets as you play the group of notes. As you are fretting the first note, begin moving the finger into place for the next note and relax the previous finger precisely when the next finger has attained full pressure against the string. Apply only as much pressure as is needed to sound the note clearly without buzzing or muting.



The next example is short phrase involving one note on each of four consecutive strings, forming a diagonal path. Again, think of using the fingers as you would fret a chord, but fret the little finger note with a smooth transition to the third finger, and so on. Think "wave". The chord shape is shown at the right of the phrase example.



It may be a sequence of notes that keeps returning to the same note. In fretting the example below, cater to the positioning of the ring finger, while shaping the hand so each of the other notes can be fretted with minimal movement.



FRETTING TECHNIQUES

Contacting The String

Fret notes with the fingertip pressing the string up against the edge of the metal fret (the edge nearest the headstock of the guitar). Exert just enough pressure. Contact the string to the fret at precisely the same time the pick touches the string, so that by the time the pick follows through, the note is clearly fretted. Fretting before picking is inefficient and impedes your ability.

Spreading The Fingers

In playing single notes, keep the fretting-hand fingers both relaxed and spread out. Keep the fingertips hovering close (within a quarter inch) to four consecutive frets on the same string in line with points at which you would fret notes. Lay the first (index) finger's middle knuckle away from the rest of the hand, giving easier access to the notes one fret toward the headstock of the guitar. Although you won't be able to stretch as far, lay the little finger in a similar way to the right (left for left-handers). This is a "ready" position enabling you to reach any note you may need to on any string within a six fret range.

FIRST HOVERING EXERCISE

This exercise develops the posture of your fretting hand, training the fretting fingers to stay in ready position. First, place all four fingers on four consecutive frets and pick the second string, sounding the note fretted with the little finger (finger "4"):

	V
	1
	2
	3
	4

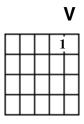
Next, lift the little finger off the fretboard 1/4" or less, "hovering" the little finger over the fretting point it used earlier, keeping the finger very relaxed. Pick the ring finger note (finger "3").

		V
	1	
	2	
	(,,	

Now, lift the ring finger. Hover both of the free fingers over the fretting points they used earlier, with both of them relaxed. Pick the middle finger note (finger "2").

			V
		1	
		2	

Finally, lift the middle finger. Hover all of the free fingers over the fretting points they used earlier, with them relaxed. Pick the index finger note (finger "1").



Repeat the sequence, trying each time to relax the fingers more and hover them closer to the fretboard. You'll probably have the most trouble with the little finger.

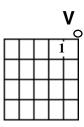
CLOSENESS AND CLEARING EXERCISE ON TWO STRINGS

Versions of this exercise will be presented later on all six strings, with slurs, and in combination with the hover exercise. Like the hovering exercise, this one trains your fingers to stay close to the strings.

As you are playing this exercise, you may need to adjust the position of fingers with which you previously fretted in order to reach the next note you are fretting. If so, the next time you play the exercise, try to position the fingers when you put each down initially, so no readjustment will be necessary.

Step 1.

Fret the note on the second string, fifth fret with the index finger ("1"). Strum it along with the first string open, as a chord. Make sure both notes are sounding clearly. Keep the free fingers relaxed and hovering over the fretboard. The middle finger ("2") should hover over the point at which it would fret the sixth fret, the ring finger over its fretting point at the seventh fret and the little finger over its fretting point at the eighth fret. Make sure both notes sound clearly and are not muted.



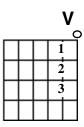
Step 2.

Leave your index finger pressing the string to the fifth fret and fret the next note with your middle finger (finger "2"). Strum it along with the first string open, as a chord. Keep the free fingers relaxed and hovering over their assigned points on the fretboard. Make sure both notes sound clearly and are not muted.

				V	
_	_	_	_	_	כ
			1		
			2		
Г					

Step 3.

Leave your index and middle fingers fretting their assigned frets and fret the next note with your ring finger (finger, "3"). Strum it along with the first string open, as a chord. Keep the little finger relaxed and hovering over the eighth fret. Make sure both notes sound clearly and are not muted.



Step 4.

Leave your first three fingers fretting their assigned frets and fret the next note with your little finger (finger, "4"). Strum it along with the first string open, as a chord. Make sure both notes sound clearly and are not muted.

			V
_	_	_	
			1
			2
			3
			4

Step 5.

Leave the middle, ring and little fingers fretting their assigned frets on the second string (sixth, seventh and eighth frets) while fretting the first string, fifth fret with the index finger ("1"). Strum the first two strings as a chord and make sure both notes sound clearly.

	,	V
]
	2	
	3	
	4	

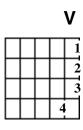
Step 6.

Leave the ring and little fingers fretting their assigned frets on the second string (seventh and eighth frets) and the index finger fretting the first string, fifth fret. At the same time, fret the first string, sixth fret with the middle finger ("2"). Strum the first two strings as a chord and make sure both notes sound clearly.

			V
			_1
			2
		3	
Г		4	

Step 7.

Leave the index and middle fingers fretting their assigned frets on the first string (fifth and sixth frets) and the little finger fretting the second string, eighth fret. At the same time, fret the first string, seventh fret with the ring finger ("3"). Strum the first two strings as a chord and make sure both notes sound clearly.



Step 8.

Leave the index, middle and ring fingers fretting their assigned frets on the first string (fifth, sixth and seventh frets) and fret the first string eighth fret with the little finger. Pick the first string.

	,	V
		1
		2
		3
		4

FRETTING PRESSURE EXERCISE

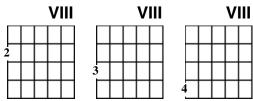
This is a good warm-up exercise. Fret the note shown below. In five steps, increase fretting pressure from totally muting the note to applying just barely enough pressure to clearly fret the note. Here is a description of the five steps:

- Step 1. The note is clearly muted. Picking it produces a thumping sound, with no buzzing.
- Step 2. The note is muted, but just barely buzzes. Picking it produces a thumping sound, with buzzing
- Step 3. The note is clearly buzzing. Picking it produces buzzing, not a muted sound, not a clear note.
- Step 4. The note is almost clear. Picking it still produces slight buzzing, but you can hear the fretted note.
- Step 5. You are applying just barely enough pressure to sound the note clearly.

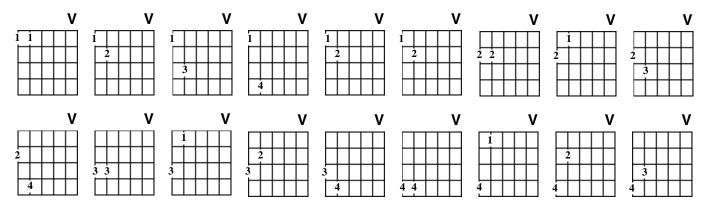


Make sure you are not increasing pressure abruptly on one of the steps. Typical mistakes are to increase pressure too abruptly between steps four and five. For example don't apply half the pressure during steps one through four, then the rest on step five.

Now apply the five steps listed above to each of the other three fingers as shown below. Of course, apply all five steps to the second finger; then apply all five steps to the third finger; then apply all five steps to the little finger.



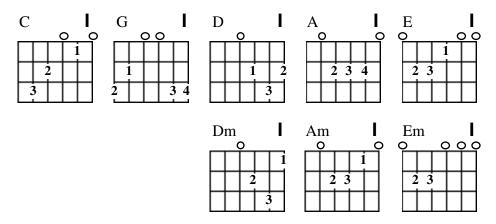
Okay, now for the hard part! Apply the five steps to each of the pairs of notes below, making sure that the sound attributes described in each of the five steps above occur on both notes simultaneously. In order to be able to hear the notes clearly on these two note chords, pluck them with your thumb and index finger, rather than picking them.



CHORD FRETTING EXERCISES

Get a head start on fretting your chords with the exercises below. The eight chords used in these exercises are usually the best ones to learn first.

CHORD CANCELATION EXERCISES



Practice each of the chords above in the following manner:

- Finger a chord using minimal pressure (just enough to prevent the notes from muting or buzzing).
- Release the pressure on the notes you are fretting, but retain contact with the strings.
- Reapply minimal pressure and strum the chord, making sure all notes are clear.
- Release the pressure on the notes you are fretting, and move your fingertips one eighth inch from the strings.
- Reapply minimal pressure and strum the chord, making sure all notes are clear.
 Choreograph the movement of your fingers so that all of the fingertips touch their strings simultaneously.
- Repeat the previous two steps four times, increasing the distance to one quarter inch, then one half inch, then one inch and finally two inches.

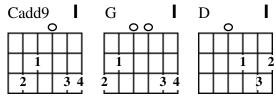
Now the chord shape should be cancelled, since your fingertips are two inches from the strings. During the exercise you trained your fingers to the choreographed movement they should make for a simultaneous touchdown.

SIMULTANEOUS TOUCHDOWN EXERCISES

Chord Changes With Fretted Notes in Common

Take advantage of a finger that doesn't need to move during a chord change. Some of the easiest chord changes involve notes in common. Practice the changes below without moving fingers on the notes in common. Be careful that the fingertips that do move fret their respective notes simultaneously.

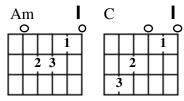
Strum each chord once in the example below Don't remove the tip of the ring finger ("3") on this example. However, the rest of the ring finger should tilt down slightly.



Strum each chord once in the example below. Don't remove the tip of the middle finger ("2") on this example. However, the rest of the ring finger should tilt up slightly.

Dm	I	A	
0		_ 0	0
	i		
2		1 2	3
	3		

Strum each chord once in the example below. Don't remove the tip of the index ("1") nor middle finger s ("2") on this example.



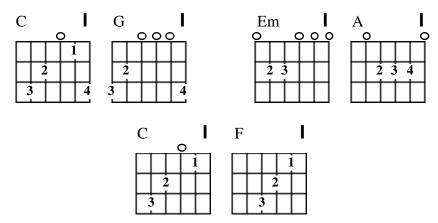
Chord Changes With Shapes In Common

Take advantage of fingering shapes that move. When part or all of a chord fingering shape is transferred to other strings, take advantage by retaining the shape. Cancelling the fingering shape would cause unnecessary movement. Be careful that the fingertips that do move fret their respective notes simultaneously.

Strum each pair of chords below, retaining the identical shape of the chord fingering.

Am	ı	E	I	A	I	E sus. 4	
_ 0	0	0	00	_ 0		<u>)</u>	0
	i	lli					Ι
2 3		2 3		2 3	4	2 3 4	T
							I

Strum each pair of chords below, retaining the identical shape of the fingering made by the middle ("2") and ring ("3") fingers.



Strum each of the four chords below, retaining the identical shape of the fingering made by the index ("1") and middle ("2") fingers.

C	I	Dm	ı	E	I	Am	I
	\circ	0		0	00	_ 0	
	1 1		Ţį		į 📗		i
2		$\frac{1}{2}$	П	2 3		2 3	
3			3		П		

TECHNIQUES OF STRUMMING

Holding the pick. There are many ways to hold a guitar pick. In the most traditional method, hold the pick between the side of the tip segment of the index finger and the flat surface of the thumb (opposite the thumbnail). Try to extend the tip of the pick 1/4" or less from the thumb for fine control (many players prefer less than 1/8"). Bend the first finger so its tip points toward the base of the thumb. Holding the pick in this manner should allow light pressure between the thumb and first finger.

The position of the pick in relation to the strings. To produce the purest string tone, cause the strings to vibrate parallel to the frets, providing maximum clearance and minimum buzzing. Make sure that the pick is held in a plane perpendicular (90°) to the surface of the strings (or to the guitar top), to avoid "catching" the string on upstrokes. Pluck the strings with the tip of the pick. Keep the flat surface of the pick almost, but not quite parallel with the length of the string. Allow the tip of the pick to protrude just barely past the underside of the string (nearest the guitar body).

Right wrist and hand position. The shoulder, forearm, wrist and hand should be loose throughout. Apply light, evenly-distributed muscular tension throughout these parts of the hand and arm to support the pick "effortlessly".

The wrist should be slightly bent unless you are using part of the hand to mute. The upper forearm should serve as an "anchor" point against the upper edge of the guitar. The fingertips, side of hand (from the base of the little finger to the wrist), heel of hand, and side of the thumb can touch to judge distance, but don't anchor them. As you develop your personal technique, you may find yourself touching with various parts of the hand. Analyze your technique to make sure the habits you develop contribute to your control of the pick.

Many players rest the "pinky" side of their hand (between the little finger and the wrist) on the bridge while picking. While this provides stability for the right hand, it sacrifices the tone variation usually available by picking closer to the neck for bass tones or closer to the bridge for treble tones.

Right wrist sweep. A sweeping, continuous down-up motion of the wrist is used for strumming chords. Here is an exercise to familiarize you with this motion:

- Move your hand side to side with the same movement as if your hand were palm-down on a table.
- Mute the strings with your left hand and strum down-up alternately on two or three strings as a group; as you would a three note chord.
- Gradually widen the stroke until you are strumming on all six strings.

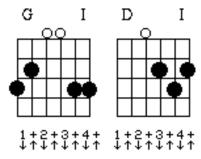
Note that when strumming alternately down-up on four to six strings, the wrist movement is so wide that it involves a distinct forearm rotation (view the protruding wrist bone nearest the thumb). The weight of the hand will aid the motion of the hand in strumming.

Strict Down-Up Strumming

In *strict down-up strumming*, each series of continuous notes is strummed strictly (1) down-up-down-up, etc. or (2) up-down-up-down, etc. If you start with a downstroke, the picking order is down-up-down-up, etc. Starting with an upstroke would use the picking order up-down-up-down, etc.

You often pass the strings before strumming them to strictly continue the down-up motion. In theory, the wasted motion is acceptable in order to allow an uninterrupted continuous rhythmic motion.

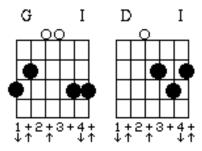
Down-up strumming exercise. Count evenly: "one - and - two - and - three - and - four - and," as you strum down on the downward arrows and up on the upward arrows.



Rhythmic Selection.

Many accompaniment and melodic rhythms can be played easily when your right hand assumes a continuous motion but you select when the pick contacts the strings. This may be applied to playing single notes or strumming chords.

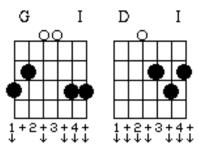
Rhythmic selection. Miss the strings where no arrow is shown.



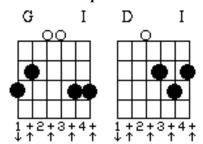
Exceptions to Strict Down-Up Strumming

Consecutive downstrokes or consecutive upstrokes provide emphasis and a consistent tone.

Consecutive downstroke exercise.



Consecutive upstroke exercise.

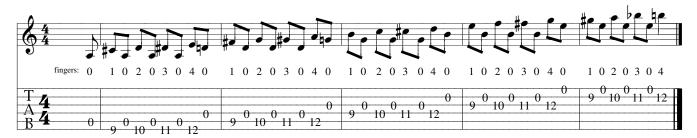


MUTING WITH THE FRETTING HAND

"Safety" Mutes

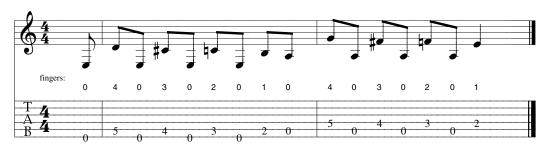
As a safeguard against strings picked or plucked by mistake, you can gently touch strings adjacent to those you are fretting. The surface of each finger between the tip of the finger and the palm may be used to mute by gently touching the smaller strings adjacent to those you are fretting.

In the example below, every fretting finger should gently touch and mute the next smaller adjacent string.



If your fingertips are large enough in relation to the string spacing, you can use them to mute the next larger string. While fretting on one string, the fingertip of the fretting finger can gently touch the next larger string and mute it.

As each finger frets in the example below, it should gently touch and mute the next larger adjacent string so that no two notes sound at the same time.



Safety mutes can be used with chord fingerings to mute smaller and larger strings. If the chord involves strings two through five, for example, safety mutes could be applied to the first and sixth strings.

While fretting the chord progression below, try to mute the first and sixth strings with the fretting hand. If you are unable to mute the sixth string, at least mute the first string.

A9	IV	D9 V	A dim. 7 V	A6 VI	A dim. 7 V	Bb9 V	A9 IV
3	2 4	2 3 3	3 4	2 3 4	3 4	3 4	3 4

Muting Notes After Fretting Them

After fretting a note, it can be muted by aburptly decreasing the pressure to the point that you are lightly touching the string. This will mute the string. Let the string lift off of the fret quickly. If it lifts off slowly, it may buzz.

Muting Single Notes When Moving To A Larger String

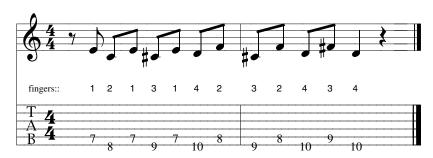
Rolling technique. If two consecutive notes are fretted on the same fret with the second note on a larger string, the *rolling technique* can be used to mute the first note.

The rolling technique exercises below should involve a slight "cradle-like" rocking motion of the palm to help move each finger from one string to another. The base of the first finger should be closer to the fretboard than the base of the little finger.

The rocking motion should involve more movement on the side of the palm near the little finger. This causes a slight rotation of the finger. From the player's view of the fingertip, the finger rotates clockwise when moving to a smaller string and rotates counter-clockwise when moving to a larger string.



When two consecutive notes are fretted on different strings with the second note on a larger string and a higher-numbered fret (closer to the guitar body), the finger fretting the second note can mute the first note. This is easier on adjacent strings, but can be done two or more strings apart by using the fretting fingers flattened against the strings.

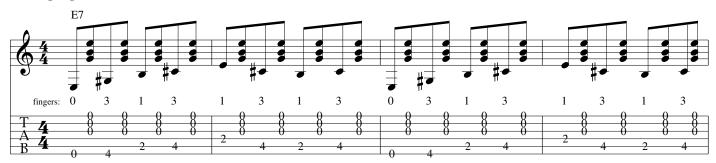


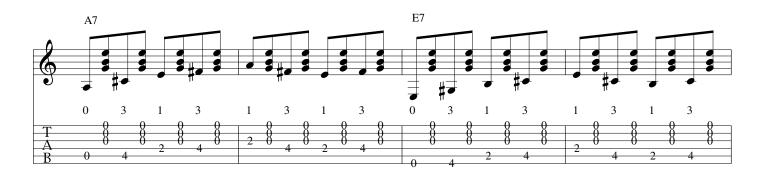
Combined Fretting and Muting

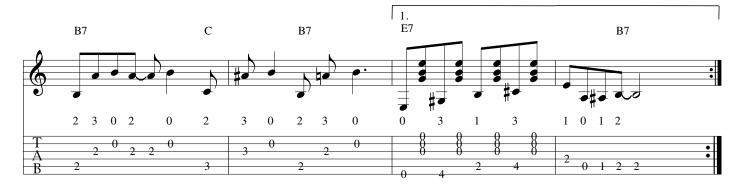
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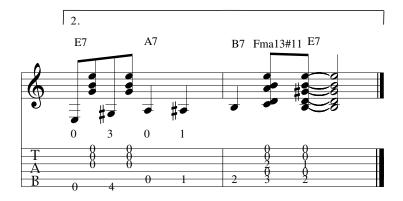
Mute each open string chord with the finger that frets the note that follows. Pluck the bass notes with the thumb and the remaining notes with the fingers.

Swing Eighths







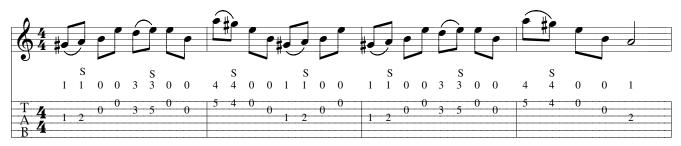


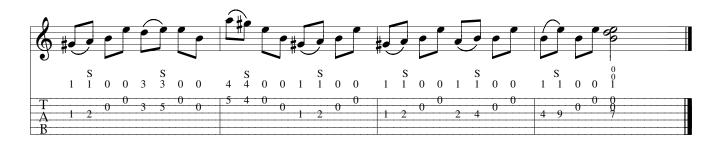
INTRODUCTION TO SLIDE

This technique should not be confused with bottleneck slide technique, which will be covered separately. The slide is a slurring technique where two or more notes are sounded when picking or plucking the string once, continuing the pressure against the fret with the fretting hand and slidding to another fret. Two or more consecutive notes can be performed with the slide, by moving up or down a string to different frets.

If the slide is a distance of two or three frets, you should be able to retain the contact on the back of the neck with the ball of your thumb, pivoting on it. This makes it much easier to retain your orientation on the fretboard. You may be able to retain contact while sliding over three frets, especially if the span of your hand is large and/or if playing on the higher-numbered frets (which are closer together).

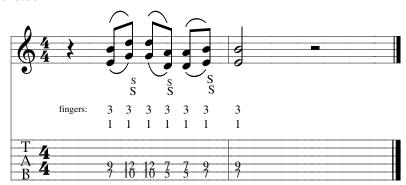
Single Note Slide Exercise





The slide may be performed on two or more strings simultaneously. Here is an example where the notes are consistently an interval of a fifth apart (equal to five scale tone apart).

Perfect Fifth Slide Exercise



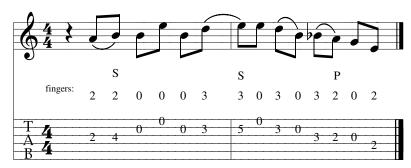
"RECOIL" TECHNIQUE

I named this technique after a rattlesnake, because of its habit of returning to its ready position after striking and biting.

In more fundamental styles such as blues, rock and folk, an improviser often uses a single scale fingering pattern as a source for melodic tones. This makes it easier to develop an improvisation by having to recall only one pattern. In these styles, an improviser can slide up to a note, then return to the original scale fingering area.

To make this quick and efficient, keep the ball of the thumb in contact with the back of the neck. Slide up the neck, then quickly return. Try this in the exercise below.

recoil technique example 1



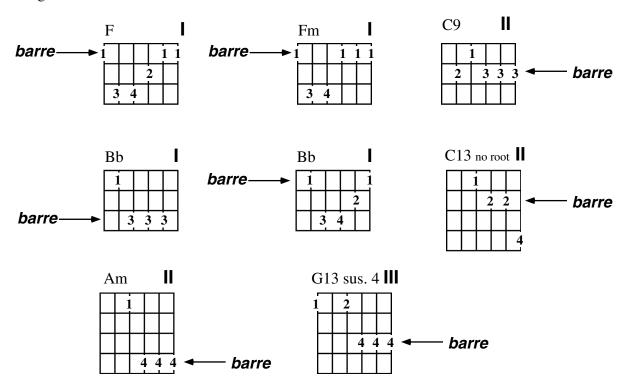
recoil technique example 2



BARRE TECHNIQUE

Fingers Typically Used

Barreing is most commonly performed with the index and ring fingers, less often with the middle finger and the little fingers. Here a few of the most common barré chords:



The Portion Of The Barreing Finger

Generally, it is most efficient to barre with edge of a finger (the area between the surface of the finger facing the palm and the side of the finger). With the index finger, the preferred edge is on the side of the finger nearest the thumb. On the other fingers, the edge opposite the thumb usually works best.

Applying And Sustaining Pressure

Usually the thumb should be placed near the middle of the neck, opposite the barréing finger. Pressure should be applied between the thumb and the barréing finger. The shape of your hand will be a little different for each barre chord. Listen carefully to all the notes that should be sounding in a barre chord you are playing.

The "F chord shown above usually works better when the thumb is placed near the middle of the neck, while the "C9" chord works better with the thumb below the middle and toward the head of the guitar. The "Am" chord shown above works best if the thumb is placed well below the center of the neck and toward the head of the guitar.

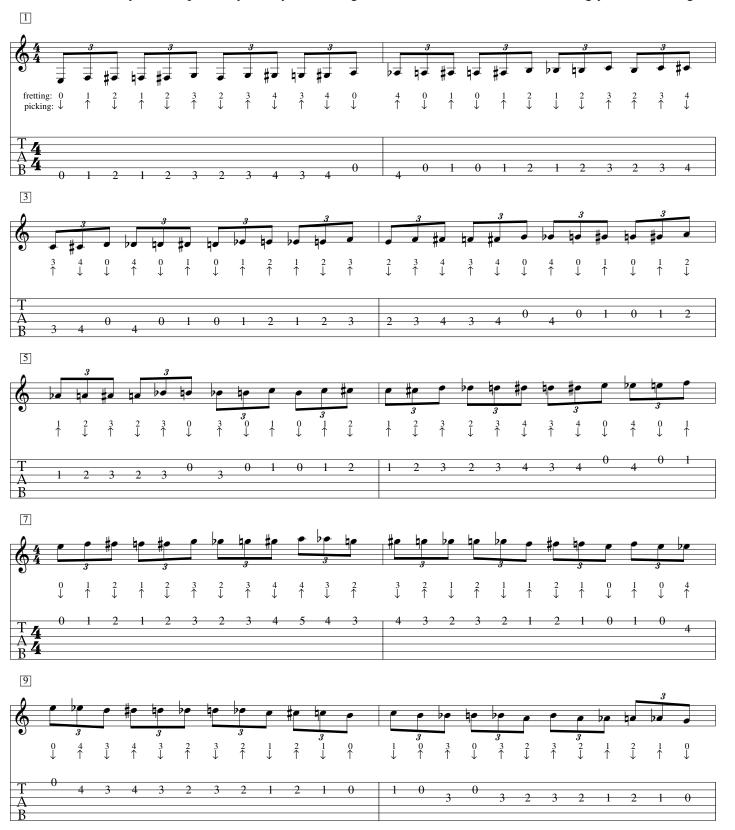
Avoiding Stress

Barreing can be quite stressful on the tendons in your wrist, so take a break whenever you experience the slightest pain. Do your best to develop barré forms that avoid bending your wrist. Keep your elbow at your side. It is often better to keep the base of the little finger in front of the neck and sometimes above the level of the first string. Keeping the palm close to or touching the bottom of the fretboard will avoid bending your wrist.

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Open-Position Chromatic Scale Exercise

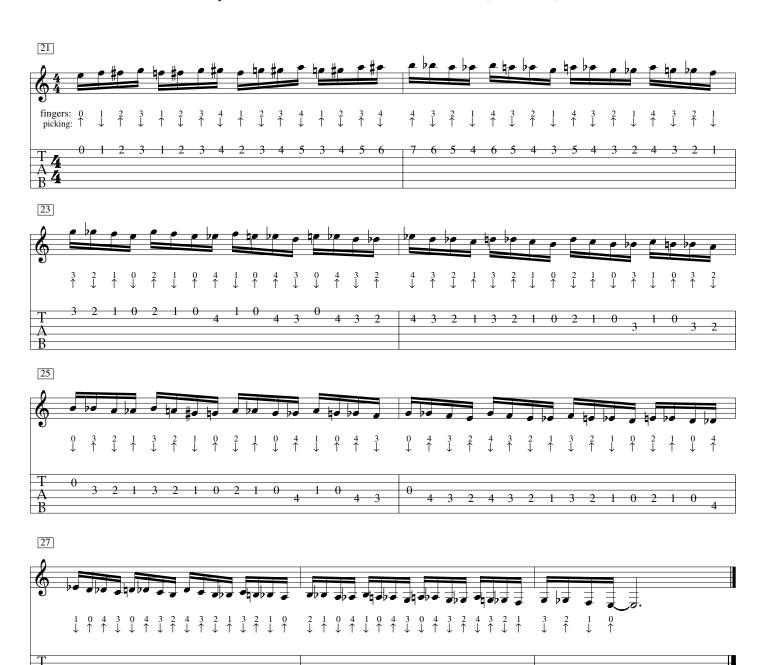
Pick alternately down-up when you stay on a string. Pick in the direction of a new string you are moving to.





Open Position Chromatic Scale Exercise (continued)

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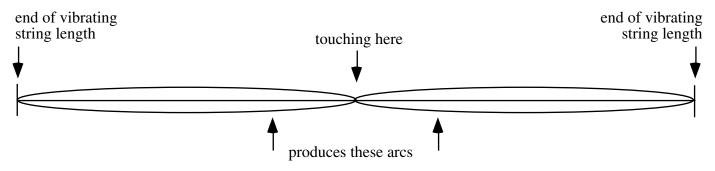
HARMONICS

Each note played on the guitar produces complex sounds comprised of many pitches. The loudest of those pitches, the one we're most aware of, is called the fundamental. Other pitches that sound with the fundamental are called harmonics. Harmonics sound clearer and louder using the bridge pickup with a reasonable amount of treble.

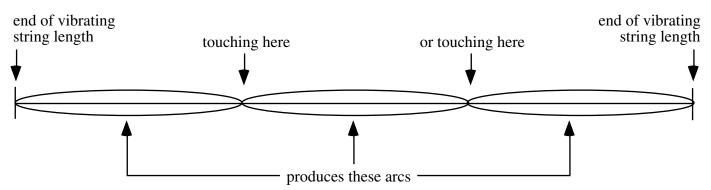
"Touch" (or "Artificial") harmonics.

"Touch" harmonics can be produced by forcing the string to vibrate in fractional arcs called "partials." By touching the string very lightly with the fingertip at 1/2, 1/3, 1/4, 1/5, etc., the vibrating string length from either end, the string can be forced to vibrate in sections. As the sections or arcs vibrate, they produce the sound we call a harmonic.

If a touch harmonic is played at 1/2 the string length, the string will vibrate in two sections:



A touch harmonic played at 1/3 the string length, causes the string to vibrate in three sections:



Once the strings are vibrating in sections produced by touch harmonics, touching the string exactly at the end of an arc will *not* stop its vibration. Touching the string anywhere other than an the end of an arc will mute the string. The point at which the ends of two arcs meet is called a *node*.

All of these fractional arcs or *partials* sound with every open string and fretted note you play, but with much less volume than the fundamental (above). The shorter the string length, the lesser the volume. A multiband equalization unit can aid in bringing out particular harmonics by increasing the volume through the higher range of pitch where they occur.

Open string touch harmonics.

Before or after picking a note, touching the string very lightly at the particular places along the string will produce a harmonic:

- Touching at the 12th fret (1/2 the vibrating string length) will produce a harmonic an octave above the open string. Touch exactly over the metal fret.
- Touching at the 7th or 19th frets (1/3 the vibrating length) produces a harmonic an octave and a fifth above the open string. Touch exactly over the metal fret.
- Touching at the 5th or 24th frets (1/4 the string length) produces a harmonic two octaves above the open string. Touch exactly over the metal fret.

TWELFTH FRET HARMONICS EXERCISE

Play harmonics where the diamond-headed notes are shown at the twelfth fret.

Touch exactly over the twelfth fret, not where you usually fret it, but exactly over the metal fret.



PICKING HEEL-OF-HAND MUTE

The "heel" of your hand is the ridge of muscle and flesh between your wrist and palm. By touching a string immediately next to the bridge, the sound can be softened, or muted. This technique is easier to perform with the elbow of the picking hand a inch or two lower, so the picking hand arm is closer to being parallel to the strings. The same positionion of the hand can temporarily be gotten by bending the wrist of the fretting hand. The wrist should not remain bent in this manner for an extended length of time, as it would put unnecessary stress on the wrist.

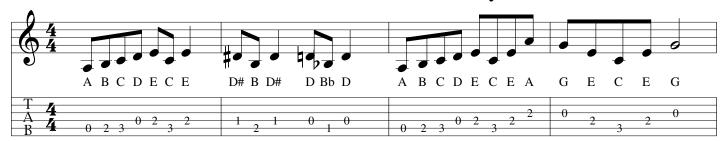
Pressing the heel of the hand anywhere on a string while picking or plucking it will raise the pitch of notes played on that string. To keep this change in pitch to a minimum, mute by touching the string as close to the bridge as you can. More pressure should be applied to the bridge than to the string.

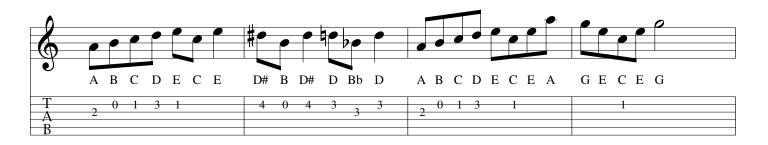
As with standard picking, heel-of-hand muted picking should be accompolished by a side-to-side sweeping motion of the wrist. To move from one string to another, keep the wrist in contact with the vibrating end of each string nearest the bridge. You should find it fairly easy to pick muted notes on either or both of two adjacent strings without changing the location of the wrist. With practice, you can even play on three adjacent strings without changing the placement of the wrist, but it is usually better to move the placement of the wrist rather than risk losing a mute.

In the Hall of the Mountain King

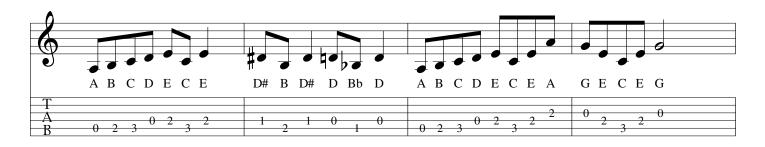
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Use heel-of-hand mutes for every note.







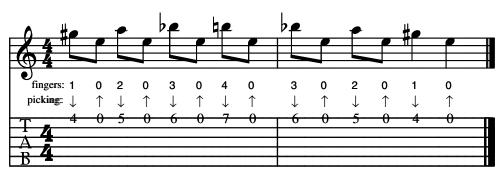




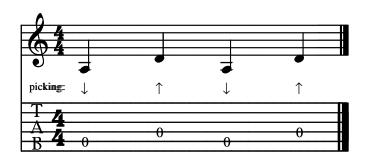
PRIMARY STYLES OF PICKING

ALTERNATE PICKING

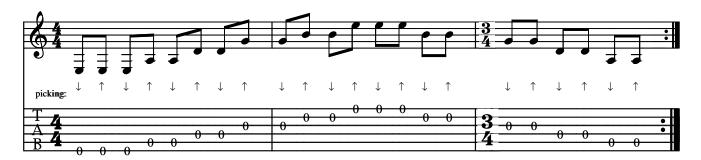
In *alternate picking*, each series of continuous notes is picked strictly (1) down-up-down-up, etc. or (2) strictly up-down-up-down, etc. If you start with a downstroke, the picking order is down-up-down-up, etc. Starting with an upstroke would use the picking order up-down-up-down, etc. On a single string, this is simple enough:



You often pass a string before picking it to strictly continue the down-up motion. If you were to pick down on the fifth string immediately before picking a note on the fourth string, you would move the pick slightly past the fourth string before picking it, so it can be picked in an upstroke. In theory, the wasted motion is acceptable in order to allow an uninterrupted continuous rhythmic motion.

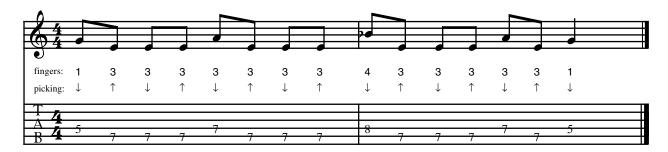


Alternate Picking Exercise. The most significant disadvantage of down-up picking is having to pass a string before picking it. On the exercise below, every string has to be passed before picking. Using all open strings, pick in this exact order of down (\downarrow) and up (\uparrow) strokes.



"RHYTHMIC" PICKING

Imagine alternate picking a series of notes with an even rhythm:

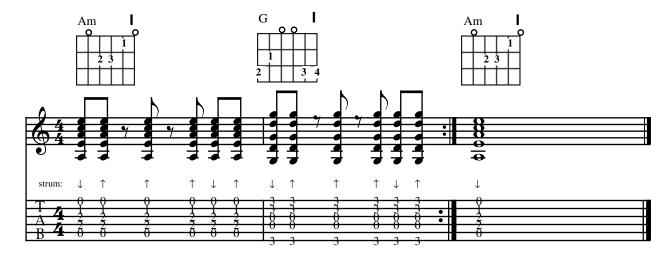


Now, imagine some of the notes missing from the even rhythm:



Carefully compare the two examples above.

Strumming By Rhythmic Selection. Many accompaniment and melodic rhythms can be played easily by assuming a continuous down-up motion with your picking hand and selecting when the pick contacts the strings. So, this may be called "rhythmic selection from a continuous pulse." It may be applied to playing single notes or strumming chords.



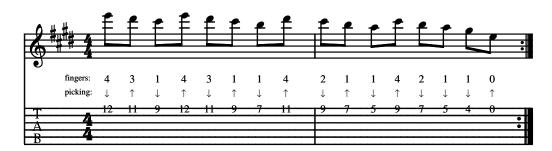
Creating Rhythmic Picking By Rhythmic Selection. For single notes, as with strumming, you can assume a continuous down-up motion with your picking hand and select when the pick contacts the string.



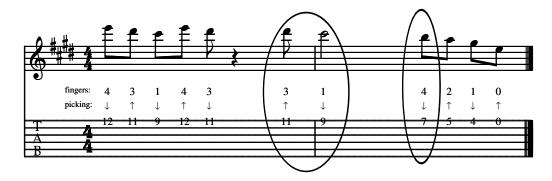
ECONOMY PICKING

Basic Concept

Staying On The Same String. Whenever you remain on the same string and pick continuous rhythms, pick alternately down-up.

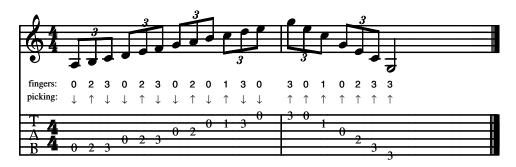


Picking Discontinuous Rhythms. When the regular pulse of a rhythm you are playing in single notes is interrupted (by a sustain or by a rest), the next picking stroke can be in either direction. If the next picking stroke is on the beat (at the beginning of a beat), it is preferable to pick down. By picking up on the first note in the circled pair below, the downstroke falls on the beat. The single circled note after the next pause is picked down, again to conform to the preferred downstroke on the beat.



If all notes on the beat are picked down and all notes on the last half of the beat picked up, this constitutes rhythmic picking, discussed earlier.

Pick In The Direction Of The New String. In economy picking, every time you move to a new string, you pick in the direction you were moving to get to the new string. This method of changing strings is more efficient, since it makes use of every stroke.



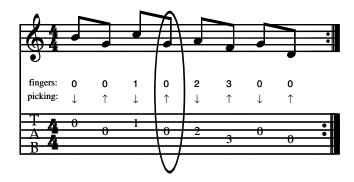
Challenges

Preserving The Rhythm. Alternate picking involves a rhythmically regular wrist movement, making it easy to pick regular rhythms. Picking two or more consecutive notes in the same direction requires timing the movement to preserve the rhythm of the notes.

Try playing the example above again ("pick in the direction of the new string"), paying particular attention to continuing the triplet rhythm through the first two beats of the second bar. It would be easy to "rush" the rhythm where the first two beats of the second bar are played with all upstrokes.

Efficiency In Passing A String Without Picking It. In economy picking, you will often need to pass over a string without picking it. This occurs when you have just picked a string, then need to move in the opposite direction of the last stroke to pick to the next note on another string. This would require passing the string you have just picked, on the way to picking the next string. Whenever this occurs, minimize the length of your stroke, staying close to the string before changing direction in moving toward the next string.

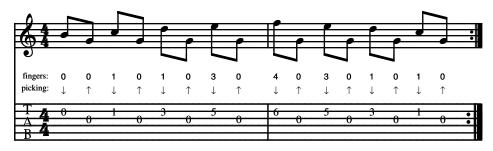
In the exercise below, after picking every note except the circled one, you will need to change direction to move to the next string. In doing so, try to minimize the length of your stroke, staying close to the string before changing direction in moving toward the next string.



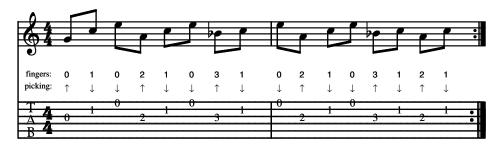
Inside Picking

Inside picking is a concept to improve efficiency with economy picking, where a repeated note group involves picking downward on the smallest string and upward on the largest string. Following the rule of *picking in the direction of the new string*, immediately after picking the largest or smallest string in a repeated group of notes, you would have to pass the string without picking it on the way to the next string.

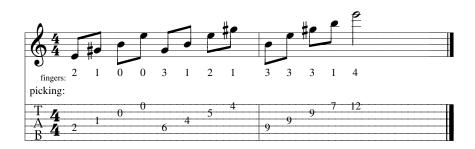
inside picking example 1



inside picking example 2



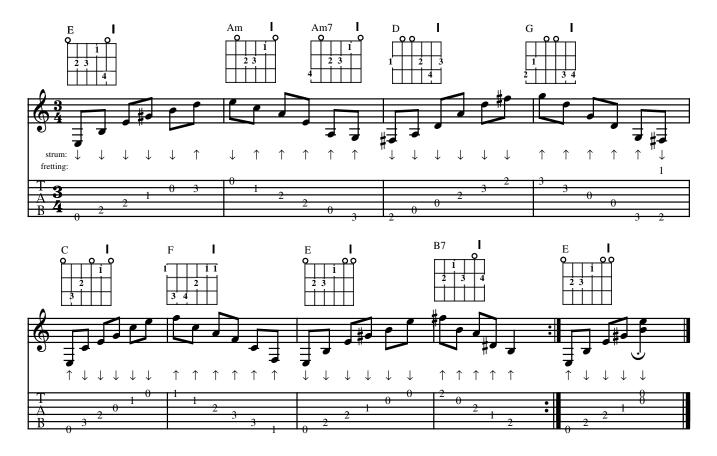
Tilting The Pick For Four Or More Consecutive Strings. Economy picking scales, arpeggios or melodies which consistently progress upwardly in pitch involve more downstrokes, since the first and last note on each string would be picked down. Play the example below.



Economy picking scales, arpeggios or melodies which consistently progress downwardly in pitch involves more upstrokes, since the first and last note on each string would be picked up. Play the example below.



When four or more consecutive strings are picked in the same direction, tilt the plane of the pick from its base (opposite the tip) five to ten degrees so it can glide over the surface of the strings.

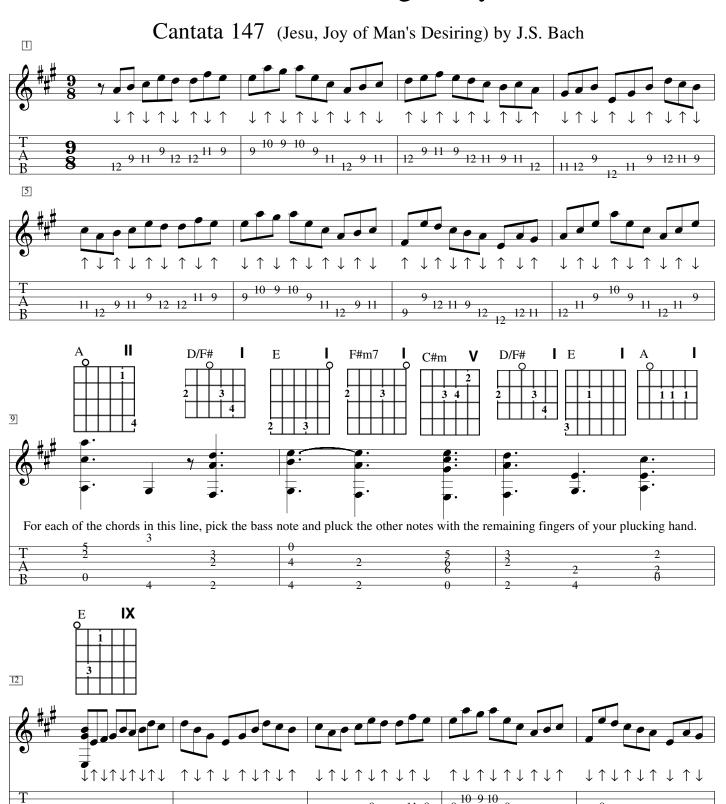


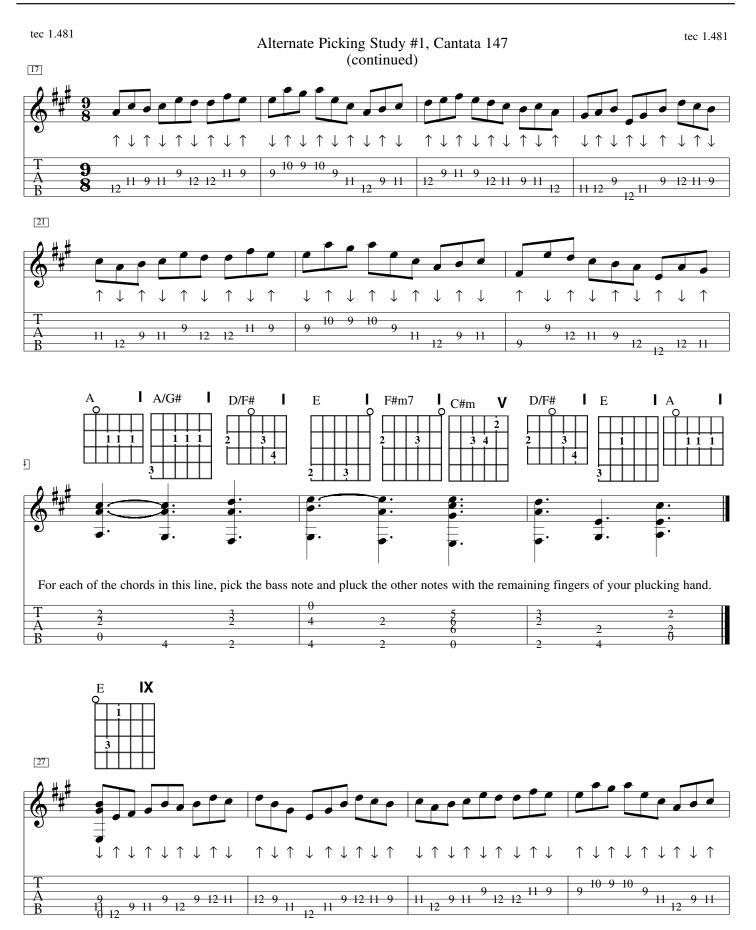
SWEEP PICKING

Sweep picking will be discussed soon in Level 2.

Alternate Picking Study #1

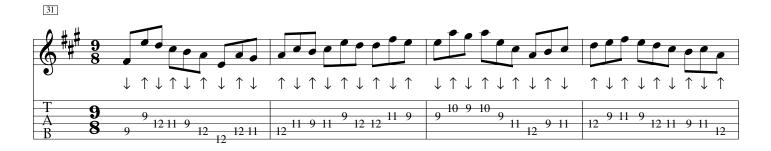
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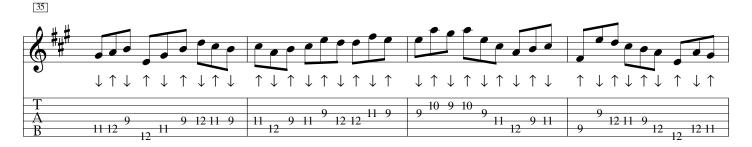




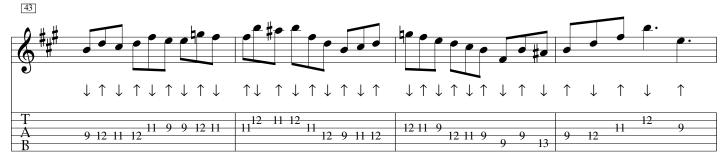
Alternate Picking Study #1, Cantata 147 (continued)

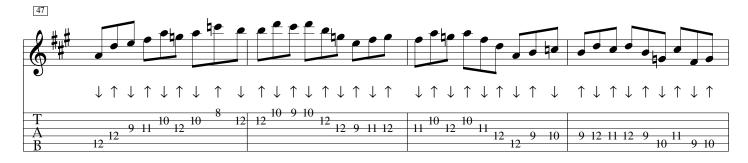
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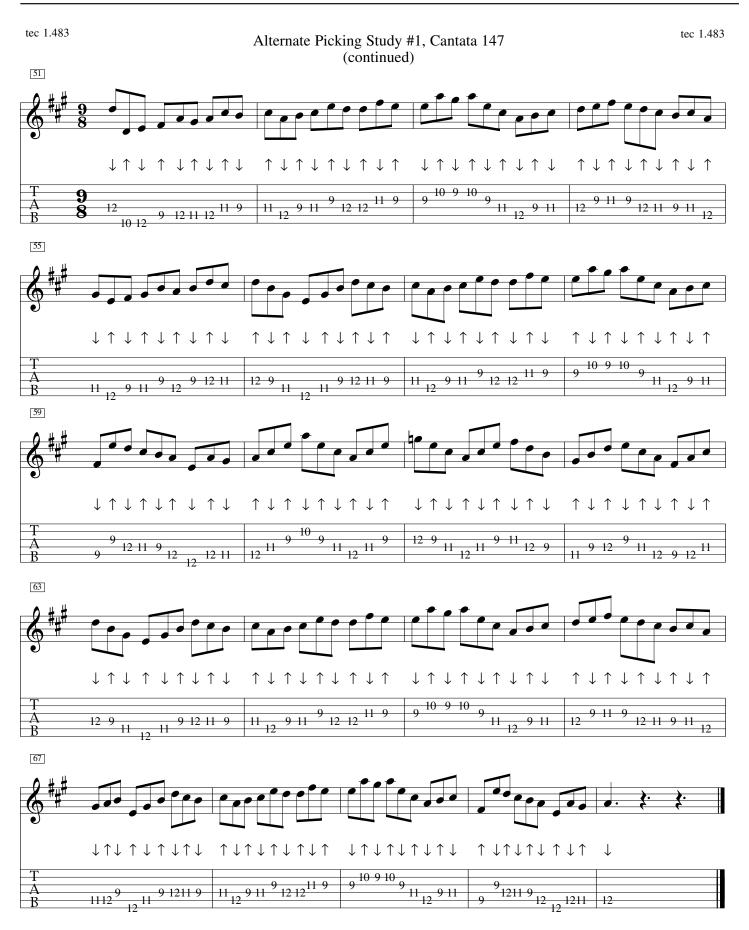








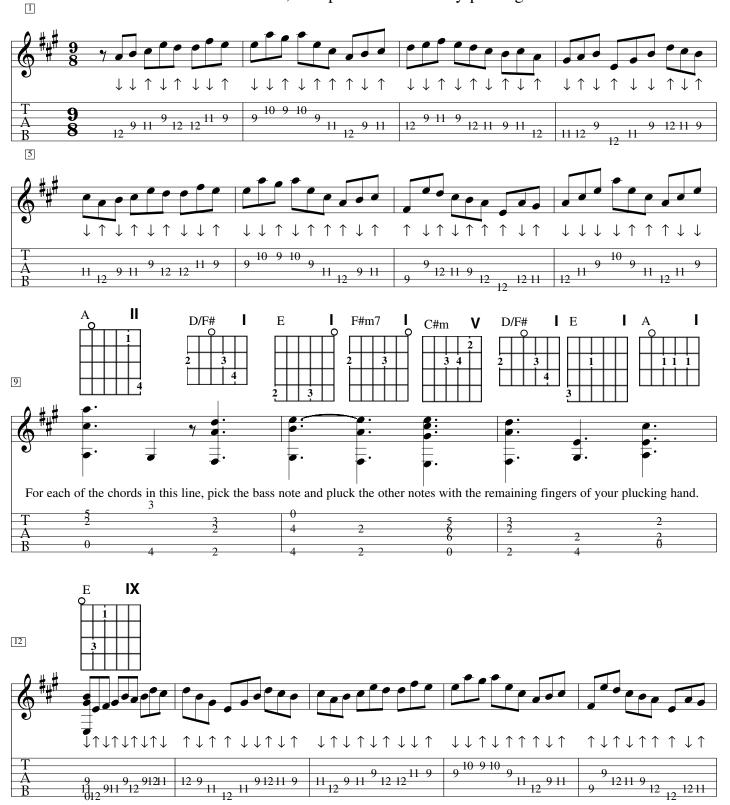




Economy Picking Study #1

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Cantata 147 (Jesu, Joy of Man's Desiring) by J.S. Bach. This exercise is the same as the previous one, Alternate Picking Exercise 1, except it uses economy picking.

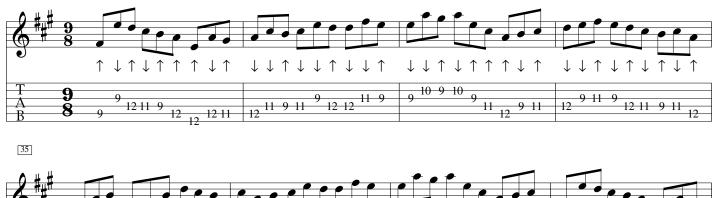


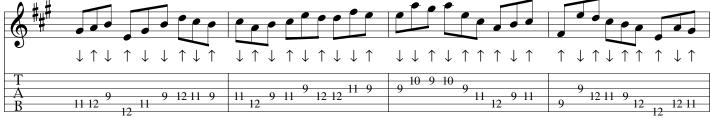


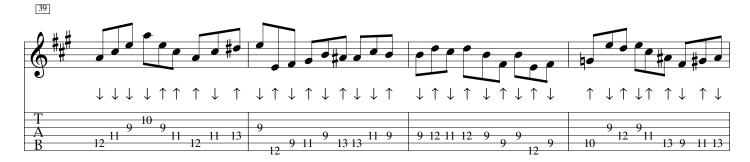
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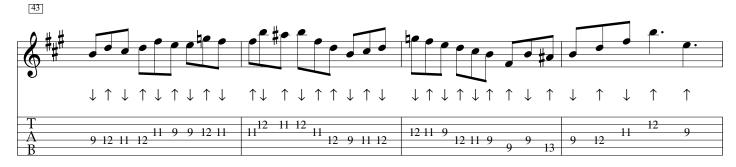
Economy Picking Study #1, Cantata #147 (continued)

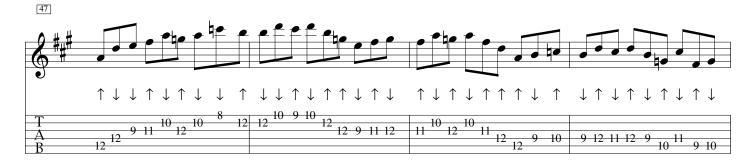
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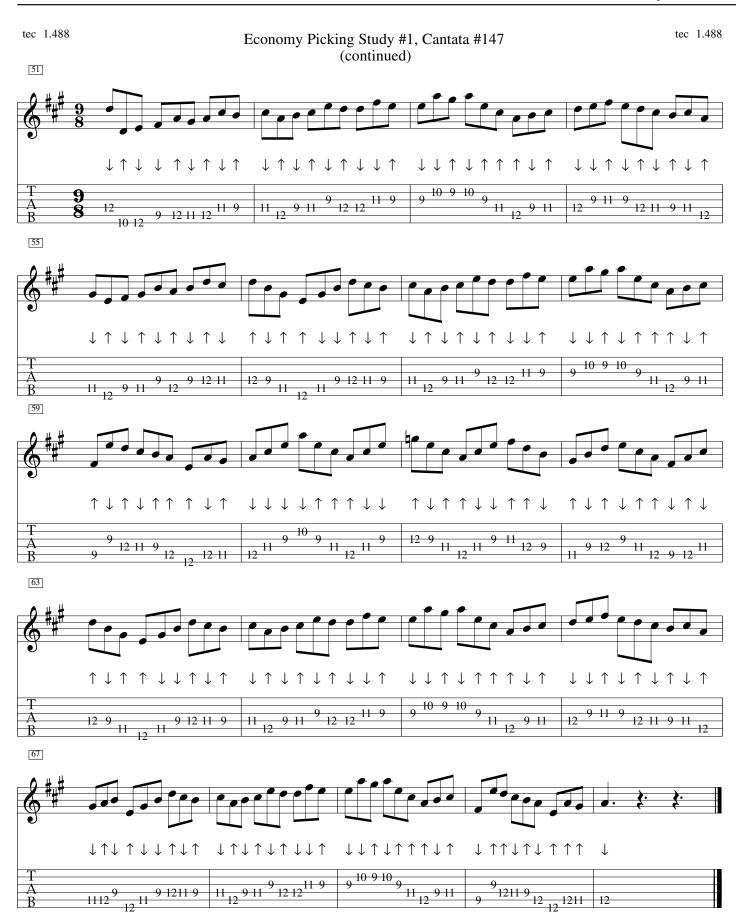












SIDE OF HAND MUTING (WITH THE PICKING HAND)

This technique is used to mute entire chords with the picking hand. The mute is performed with the side or edge of the hand from the base of the little finger to the heel of the palm. The side of the hand must contact the vibrating part of the strings, but it must do so as close to the bridge as possible. The more the side of the hand is moved away from the bridge, the more the notes are sharpened (which is not desirable).

Muting causes the notes to sharpen very slightly, even if performed by muting as close to the bridge as possible, since, to some degree, the string vibrates from the side of the hand to the headnut. Technically, to play a side-of-hand muted guitar part more perfectly in tune, you would need to tune the strings slightly flat in comparison to their unmuted pitch. This would compensate for the sharpening effect of the muting. Although I have never heard of anyone doing so, I'm sure someone has been diligent enough to make this tuning compensation in preparation for a recording.

It is difficult to manipulate the pick while performing this muting technique. Since the side of the picking hand must remain in contact with the strings, you must develop the ability to move the pick with the thumb and index finger, without moving the side of the hand which is muting. To do this, the pick must be held between the thumb and the index finger. It should contact them on the "fingerprint" and "thumbprint" areas.

The picking motion is made by bending the thumb and index finger side of the hand *without* moving the side of the hand which is contacting the strings. While perfecting this technique, be very conscious of the base of the little finger where it contacts the first string at the bridge. You should be able to feel the 90° angle where the first string meets the bridge piece, on the side of the first string opposite the second string. Be certain that the base of the little finger stays in consistent contact with the first string at the bridge.

Electric guitar tone for this technique usually contains more treble. Your tone control on the guitar would usually turned up higher (75% to full on). The electric guitar pickup selection for muting would more often be the bridge and/or middle pickups, also to produce more treble. Muting reduces treble, so these settings are appropriate compensations.

Reverb and wah wah are often used along with this muting technique in Reggae. The wah wah is moved down on the beat, which increases treble on the beat. Reverb helps to compensate for the shortness of the chords caused by the muting. I still prefer the old fashioned spring reverb, maybe because that's what I've heard on the classic recordings from the fifties through the seventies.

tec 1.551 Reggae Side-Of-Hand Muting tec 1.551 VII Bm Ш VII Ш Swing Eighths 1 + 22 + 3 +1 + + 3 + 3 + 1 + Bm VII E VII BmVII Е VII Ш Ш G 3 + 43 + 41 + 23 + + 3 + 4 1 + 2Bm7 **VII** VII Bm VII VII Em Em 3 4 2 2 + 2 + + 3 + 3 + 4 1 + 2 VII Bm

INTRODUCTION TO BLUE NOTES AND BENDING

Melody is usually based on chord tones. It is commonly a decoration of chord tones, using other scale tones and chromatic tones as decoration.

Major chords sound happy. Minor chords sound sad. Certain notes of a chord can be lowered (by pitch) in the melody to suggest a feeling of sadness or other form of discontent. These lowerd notes are called *blue notes*. When the accompaniment part (such as rhythm guitar) plays a major chord and the melody (vocal, lead guitar, etc.) plays a minor chord note against it, a "blue" feeling is expressed.

Blue notes may be slurred by hammering or bending up (in pitch) to the chord tone. This accounts for much of the expression used in blues-related styles. Blue notes may be bent partially or completely to the chord tone.

To bend a note, keep the base of the first finger in contact with the lower edge of the fretboard. Bend the string toward the middle of the neck. Notes on the first and second string should be bent up. Notes on the fifth and sixth string should be bent down. Notes on the two middle strings can be bent either way.

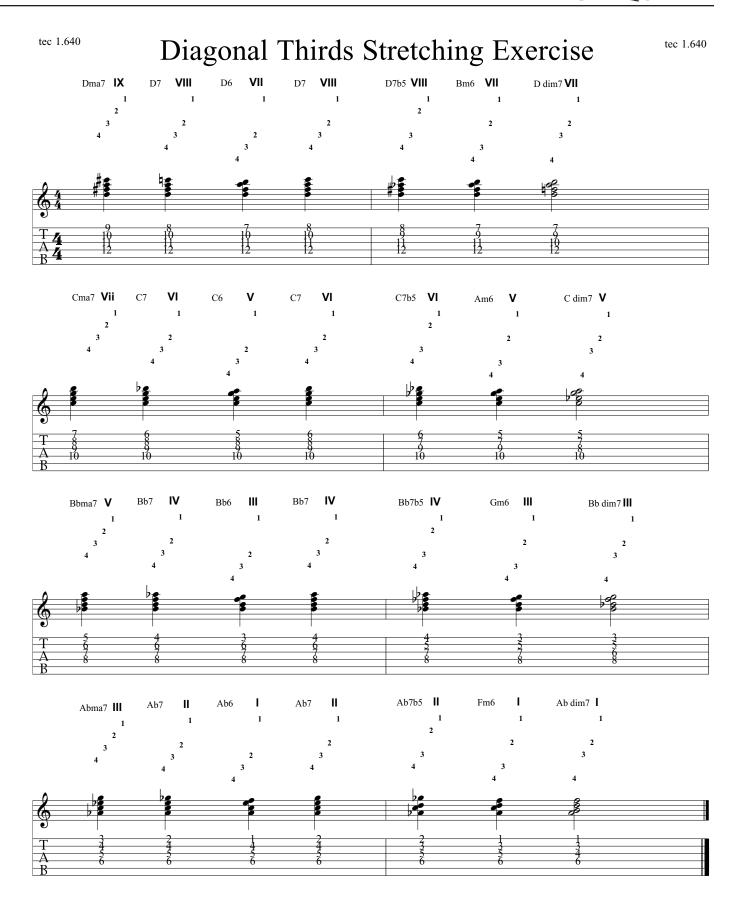
Bend the string by raising the side of the hand between the little finger and the wrist for the most part, not by straightening the finger. More detail to the bending technique, which differs when bending down and when bending up follows below.

During a downward bend (toward the first string side of the fretboard), move the side of the hand (between the little finger and the wrist) toward the front of the neck. Looking into your palm, you should see the palm move toward in front of the neck as the hand rotates counter-clockwise.

During an upward bend (toward the sixth string side of the fretboard), move the side of the hand (between the little finger and the wrist) toward the back of the neck. Looking into your palm, you should see the hand rotating clockwise, as the palm moves behind the neck.

Blue Note Example. In the example below, the first note is a lowered version of a chord tone, which is hammered into the chord tone that follows it. The notes with a sharp symbol below them (#) are slurred by bending slightly. They should be bent a half step or less.





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COORDINATED ATTACK

One of the most important technical requirements for speed on the guitar is a coordinated attack. The two hands must work together so that the precise events that must occur to sound a note happen at the same time.

With the fretting hand the event is the completion of adequate pressure with the fretting finger(s). As a finger is in the process of fretting a note, pressure is applied to the string as the finger gets closer to the fretboard. When the pressure is great enough to assure that the note will not buzz or be muted, the note is ready to be picked or plucked. The action of picking or plucking should have already begun, so it is coordinated with the fretting. It is ideal to be sensitive to the point of when adequate pressure has been applied, so time and energy can be conserved.

The picking hand event is the precise moment that the pick or finger lets go of the string it has picked or plucked. At that moment, the note(s) must be fretted with adequate pressure because the string is now going to sound.

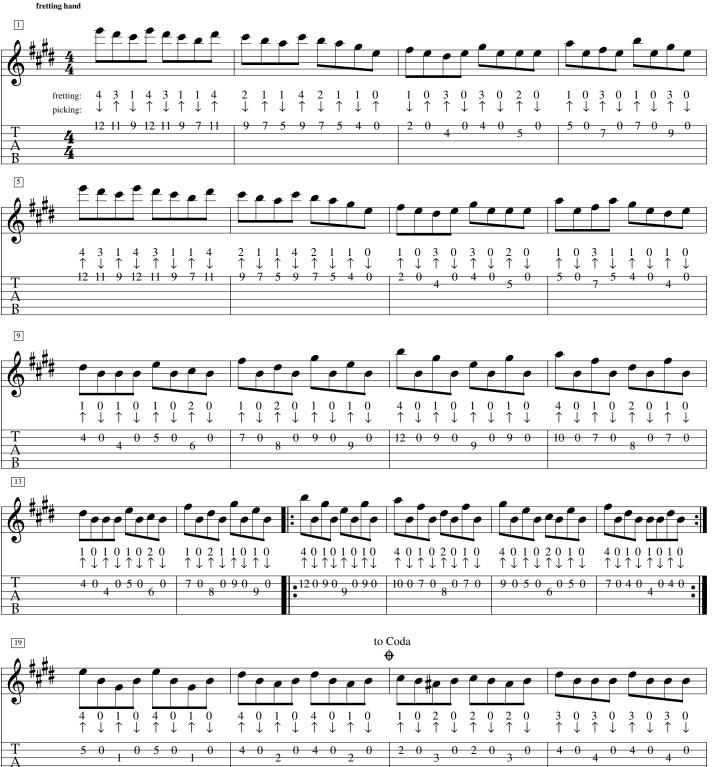
Your brain sends electric impulses to your nerves and muscles to control these events. Imagine a surge of electrical energy moving down each arm to the fingers involved in the technique. Imagine the culmination of the electrical impulses as the point of adequate pressure with the fretting hand and the letting go of the string with the picking hand. By trial and error, align the impulses to in turn align the fretting and picking in time.

Coordinated Attack Study #1 Moto Perpetuo On The "B" and "E" Strings

tec 1.691

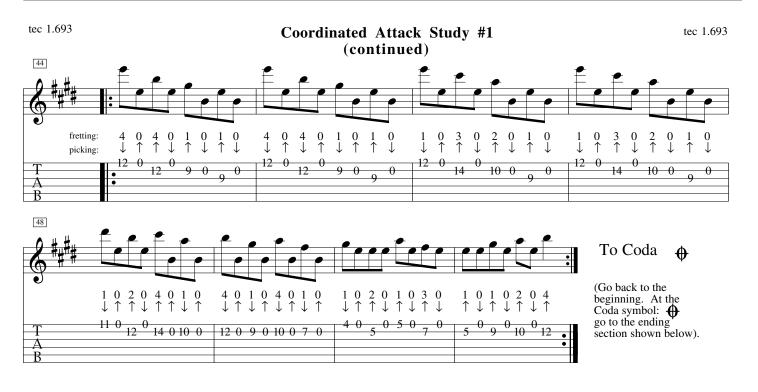


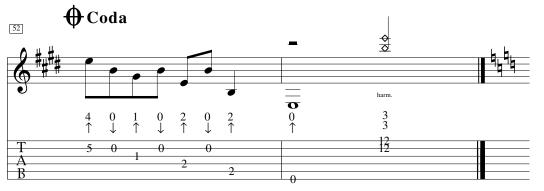
This style of picking will be described soon. Pick alternately down-up when you stay on a string. Pick in the direction of a new string you are moving to.





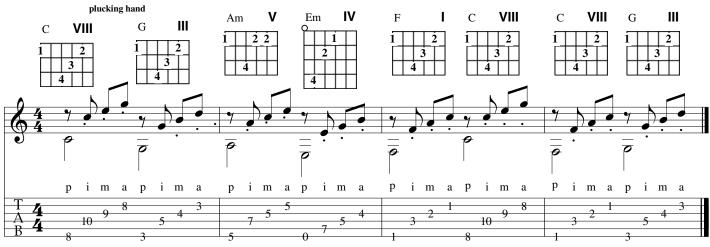
11 7 7 12 9 9 14 11 11 12 9 9 11 7 7 9 6 6 7 2







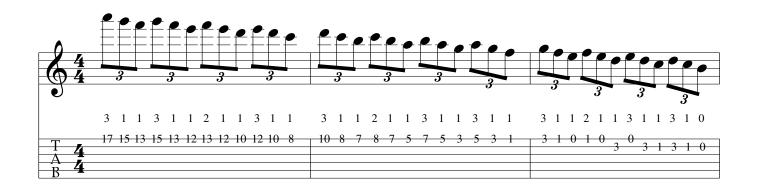
Coordinated Attack Study #2 excerpt from Pachelbel's Canon

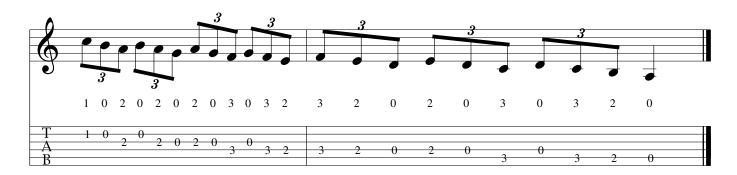


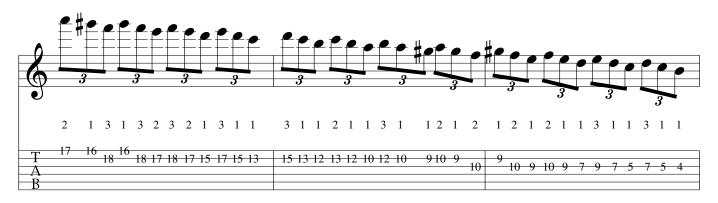
Speed Exercise:

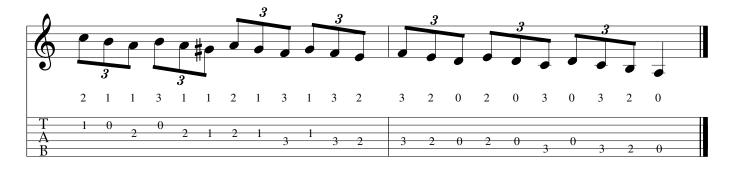
tec 1.694

the 123 scale pattern beginning on one string









tec 1.730 tec 1.730

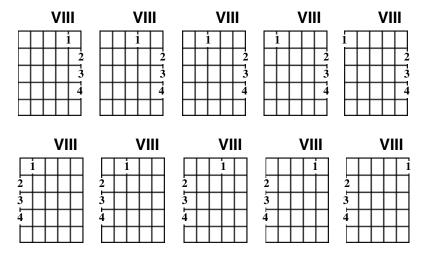
POSTURE EXERCISES FOR THE INDEX AND LITTLE FINGERS

These exercises train the the index and little fingers to stay separated from fingers next to them. By training your "outside" fingers (index and little fingers) to stay separated at the middle knuckle, the tips of the outside fingers can more easily reach to adjacent strings and frets.

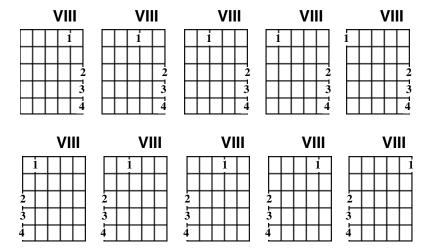
Reaching To The Two Adjacent Frets With The Index Finger

Play the sequence indicated by each row of diagrams below in order, reading from left to right. Keep the middle, ring and little fingers fretted, as shown. Play this sequence keeping the first finger very close to the strings. When your hand or fingers tire, rest and massage them.

fretting the adjacent fret with the index finger



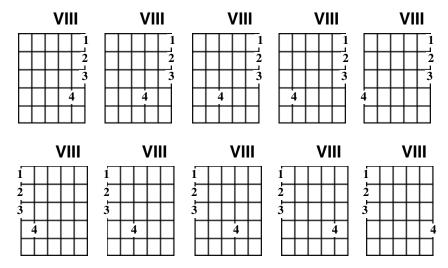
reaching two frets with the index finger



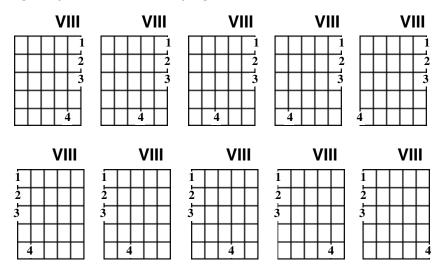
Reaching To The Two Adjacent Frets With The Little Finger

Play the sequence indicated by each row of diagrams below in order, reading from left to right. Keep the index, middle, and ring fingers fretted, as shown. Play this sequence keeping the little finger very close to the strings. When your hand or fingers tire, rest and massage them.

reaching one fret with the little finger

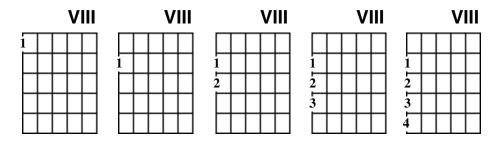


reaching two frets with the little finger

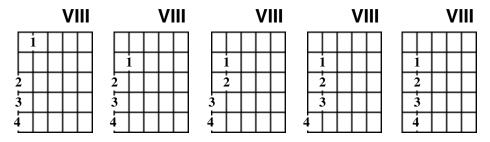


CLOSENESS AND CLEARING EXERCISE ON ALL SIX STRINGS

This exercise was presented earlier, on strings 1 and 2 only. It trains your fretting hand to hover close to the strings and to clear notes on adjacent smaller strings. Play the exercise exactly as written below, reading the diagrams in sequence from left to right in each row, then down to the next row.



As you begin to the next row, do not lift the middle, ring nor little fingers. From each diagram to the next, only move one finger.



As you begin to the next row, do not lift the middle, ring nor little fingers. From each diagram to the next, only move one finger.

VIII	VIII	VIII	VIII	VIII
i				
	1		1	1
2	2			
3	3	3	3	3
4	4	4	4	4

As you begin to the next row, do not lift the middle, ring nor little fingers. From each diagram to the next, only move one finger.

VIII	VIII	VIII	VIII	VIII
2 3 4	1 2 3 4	3 4	1 2 3	1 2 3 4

As you begin to the next row, do not lift the middle, ring nor little fingers. From each diagram to the next, only move one finger. One note is omitted on this string, so the exercise plays the chromatic scale, which is equivalent to an every-fret scale.

VIII	VIII	VIII	VIII
2 3	1 2 3	1 2 3	1 2 3
4	4	4	4

As you begin to the next row, do not lift the middle, ring nor little fingers. From each diagram to the next, only move one finger.

VIII	VIII	VIII	VIII	VIII
	i	<u> </u>	1	1
2				2
3		3	3	3
4		4	4	4

SLURS

Slurs are groups of two or more notes sounded in one picking of the string. In order from loudest, most percussive attack to softest, they are: hammer-on, pull-off, slide, bend and tremolo bar bend. The slide technique was covered earlier. Slight bending was introduced earlier with blue notes. Much more detailed instruction on bending will be given in Level 2 of this course.

Hammer-on (abbreviated "hammer")

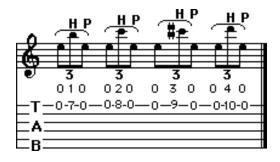
A *hammer-on* is a slur executed by smashing a string onto the fretboard with a fingertip against the fret as with a normally fretted note. This is done where a lower-pitched, fretted note or open note on the same string is already sounding. To minimize the distance from which your finger must start to hammer, place the fingertip accurately and move it quickly.

Pull-Off

A *pull off* is a slur performed by fretting and picking a note and then applying a downward tension, scraping and plucking the string as you leave it with the fretting-hand finger. Curve the path in which the finger leaves the fretboard to avoid sounding an adjacent string as you pass by it.

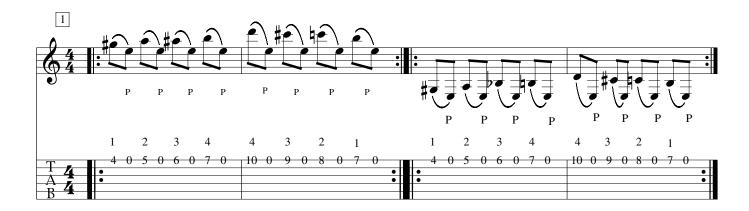
In my music notation upper case (capital) versions of "H" and "P" are used to represent hammer and pull-off.

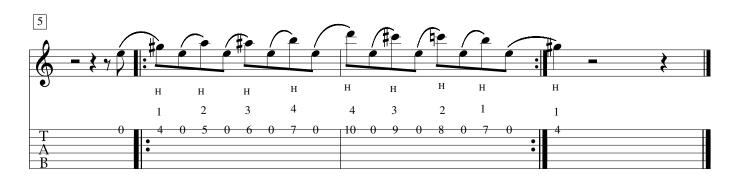
OPEN STRING HAMMER, PULL OFF EXERCISE.

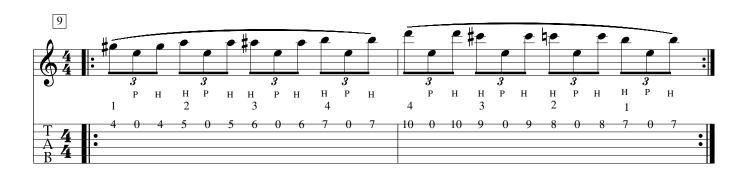


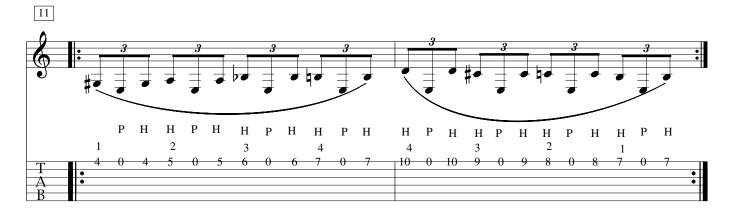
tec 1.811 tec 1.811 Open Pentatonic Slur Exercise P P P 3 0 3 0 2 0 2 $0 \ 2 \ 0 \ 2 \ 0 \ 2 \ 0$ P 2 0 2 0 3 0

Open-String Slur Exercises

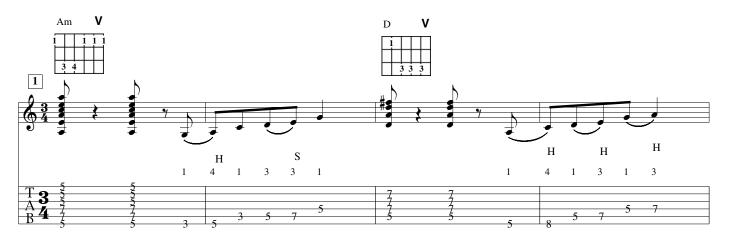


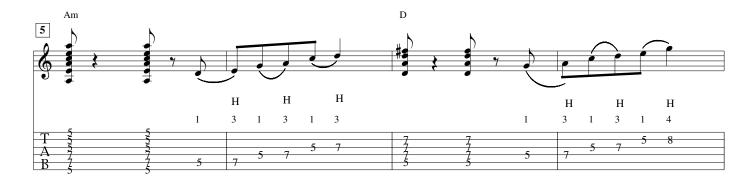


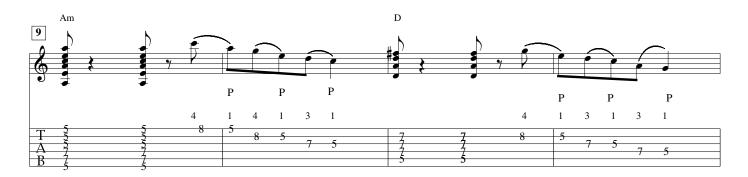


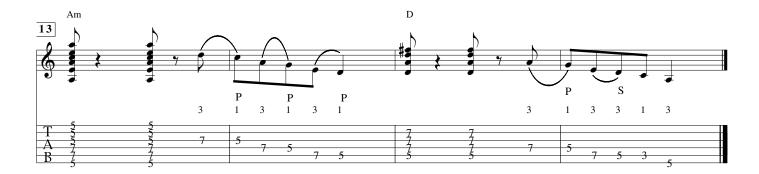


Pentatonic Scale Slur Exercises

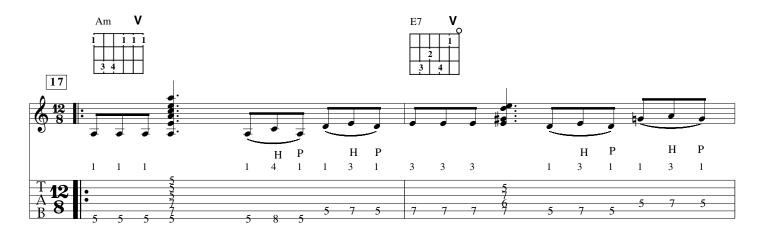


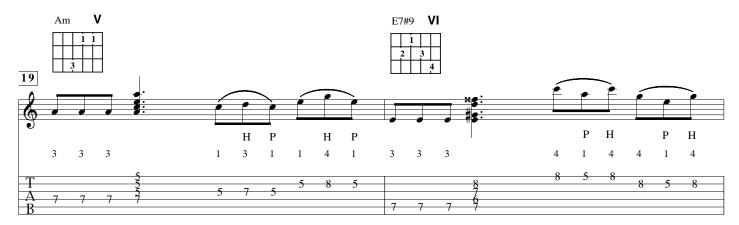


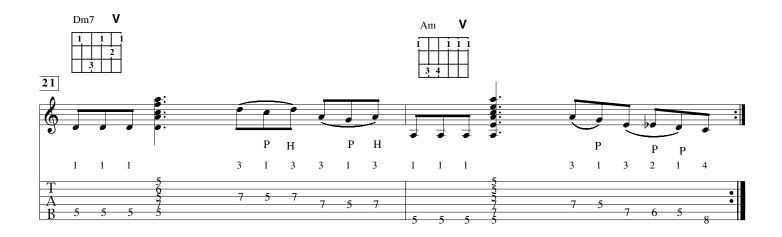




Pentatonic Scale Slur Exercises (continued)



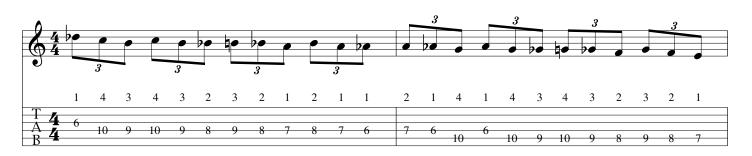


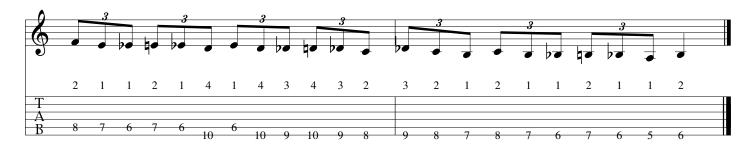


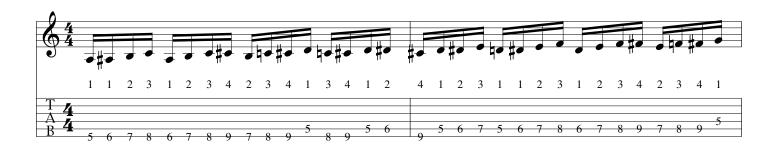
Chromatic Scale Exercises

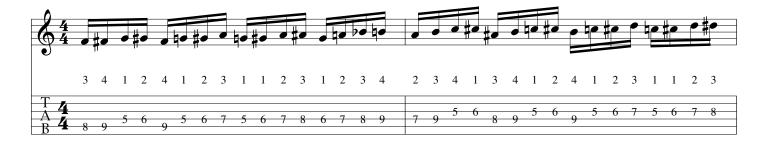


Chromatic Scale Exercises (continued)









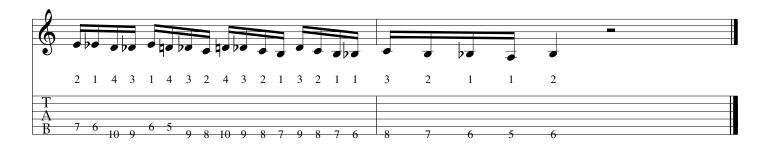


Chromatic Scale Exercises (continued)





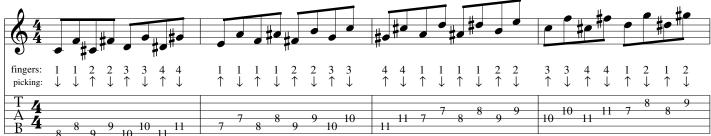


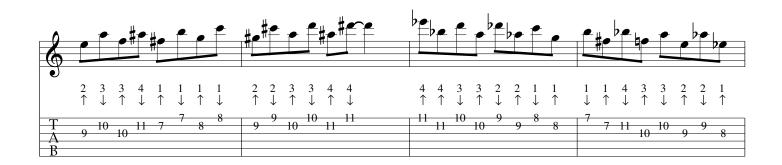


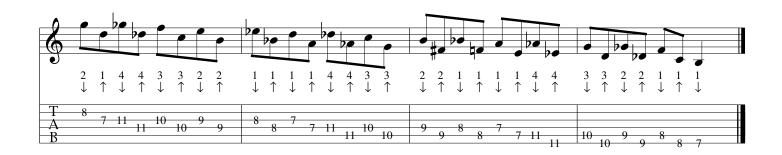
More Rolling Technique Exercises

tec 1.844

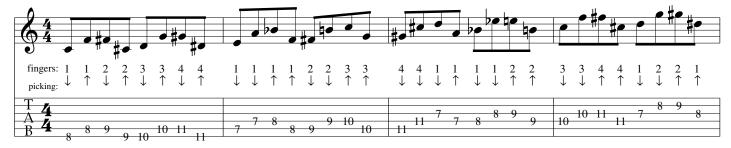




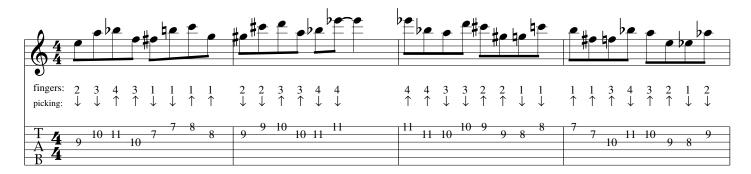


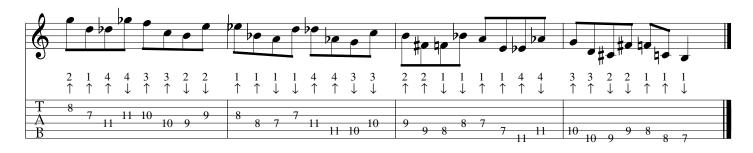


Chromatic Perfect Fourths, Alternating Up And Down



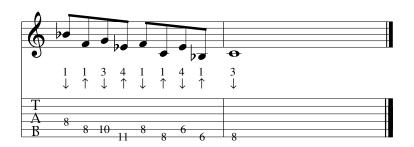
More Rolling Technique Exercises: Chromatic Perfect Fourths (continued)





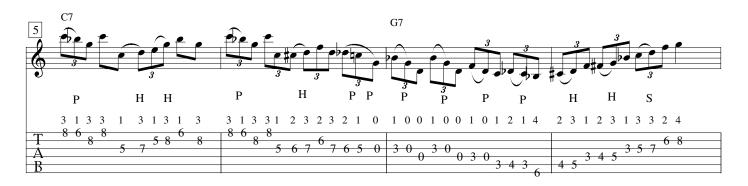


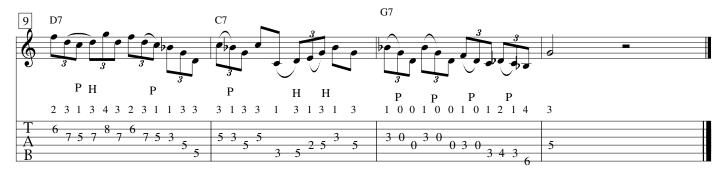




Pentatonic Slur Blues

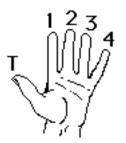






TRAVIS FINGERPICKING

This fingerpicking style was named after Merle Travis, who was most renowned for developing and popularizing it. It involves a steady bassline on the beat, plucked with the thumb. Other notes are played on the last half of various beats, or occassionaly along with a bass note. Most commonly, if a note is played with a bass note, it is on the first beat.





fretting hand

plucking hand

Symbols to represent the fingers of the plucking hand are typically shown below or around the notes they pertain to in music notation. Each symbol is the first letter of a Spanish word which represents the finger, since classical guitar developed in Spain. The symbols are shown below. The Spanish word "anular" is relation to the word "annual" and relates to the word ring in regard to the earths "annual ring" around the sun.

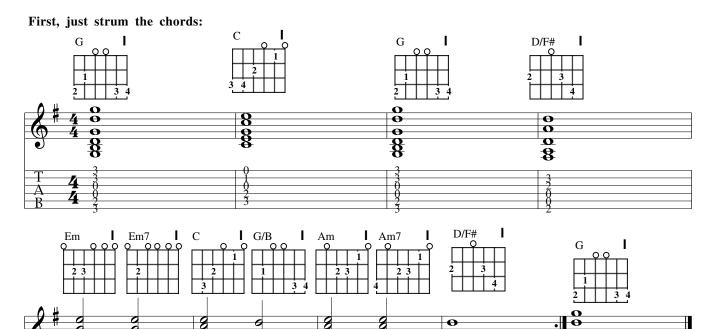
<u>symbol</u>	Spanish word	English word
p	pulgar	thumb
i	indice	index finger
m	medio	middle finger
a	anular	ring finger

The wrist should be about two fingers width from the body of the guitar. The thumb and fingers of the plucking hand should move independently of the hand, as much as possible. The thumb should bend at its base, and should be extended toward the guitar neck to avoid interference with the index finger. Each plucking finger should bend mostly at the tip joint, less at the middle joint and very little at the joint where it joins the hand.

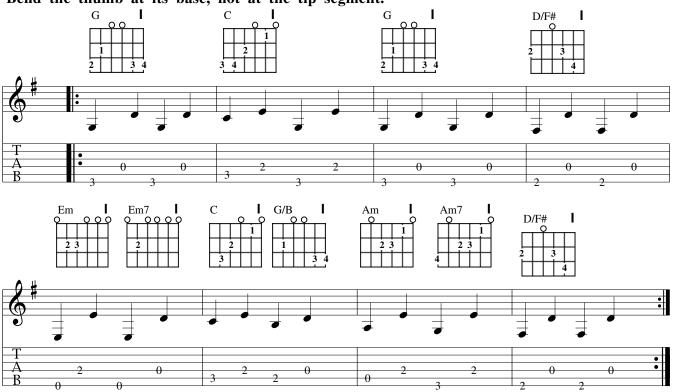
With the *rest stroke*, a plucking finger comes to rest against the next larger string after plucking. The thumb would come to rest against the next smaller string. After plucking a string with the *free stroke*, plucking fingers curve away from the next larger string. Travis fingerpicking uses the free stroke.

tec 1.881

Preparation For Travis Fingerpicking Exercise 1



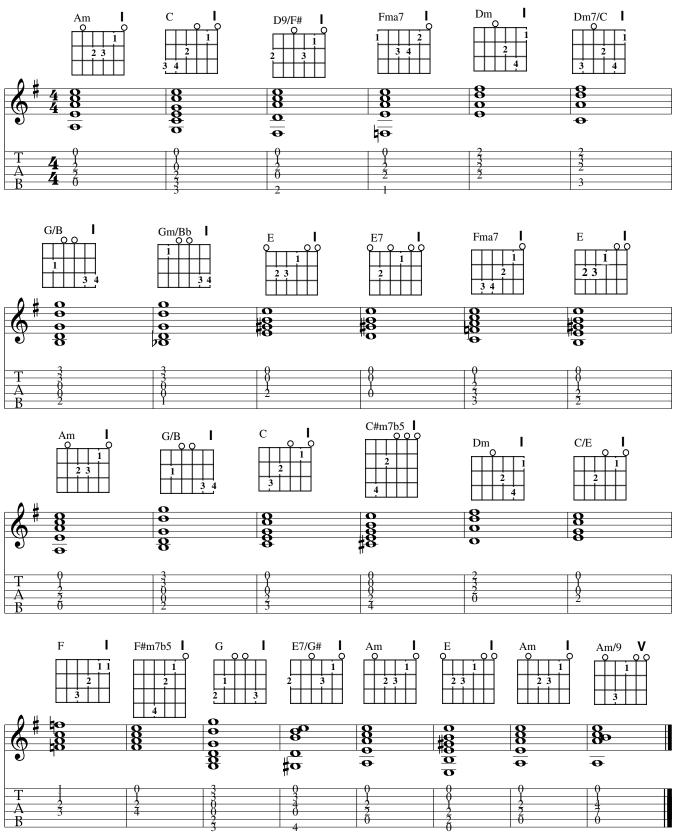
Now, finger the chords and pluck the bass notes with your thumb. Bend the thumb at its base, not at the tip segment.



Preparation For Travis Fingerpicking Exercise 2

tec 1.882

First, just strum the chords:



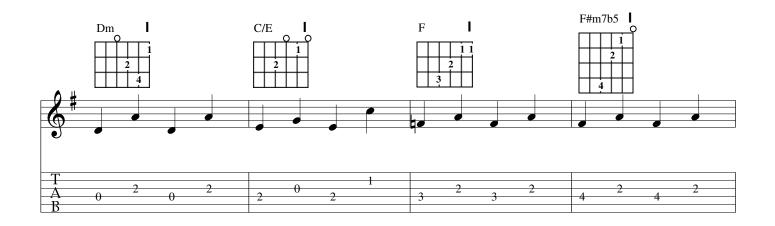
Preparation For Travis Fingerpicking Exercise 2 (continued)

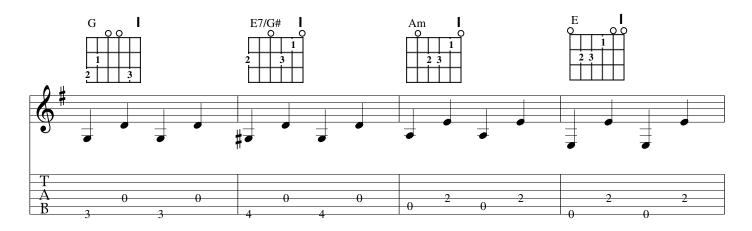
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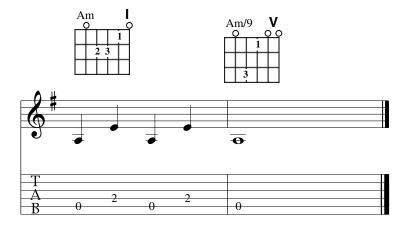
Now, finger the chords and pluck the bass notes with your thumb. Bend the thumb at its base, not at the tip segment.



Preparation For Travis Fingerpicking Exercise 2 (continued)



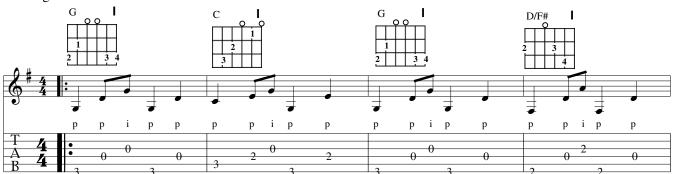


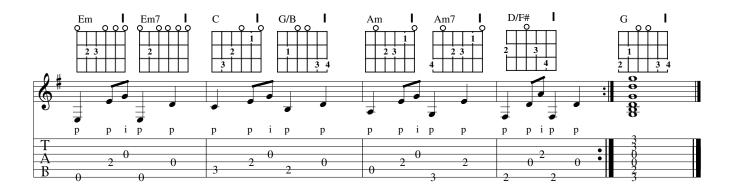


Travis Fingerpicking Exercise #1

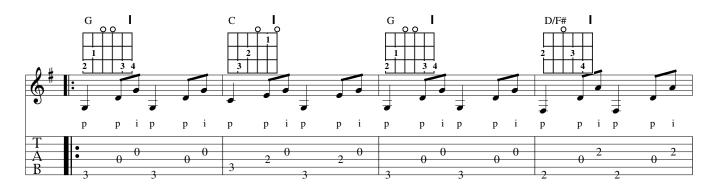
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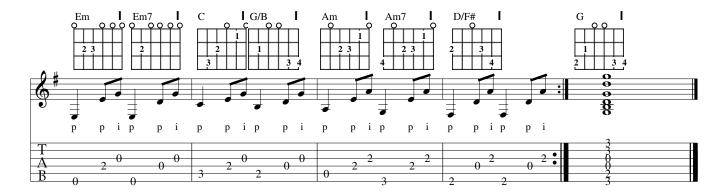
Adding one note to the end of the second beat.





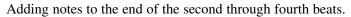
Adding notes to the end of the second and fourth beats.

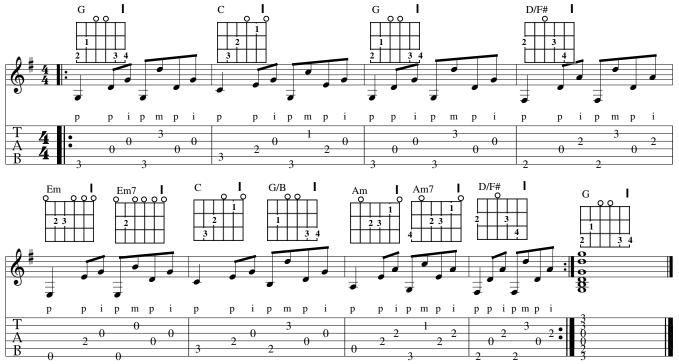




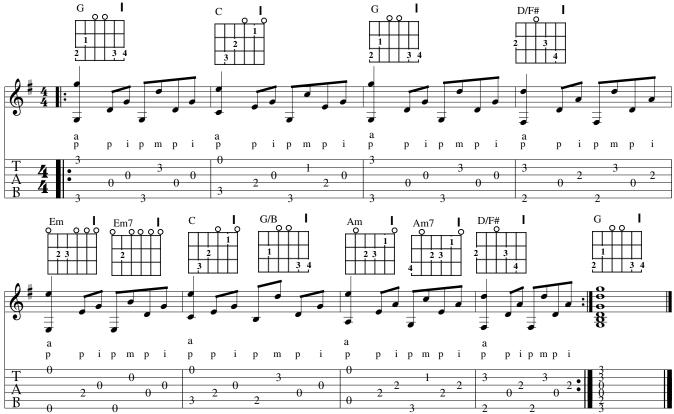
Travis Fingerpick Exercise #1 (continued)

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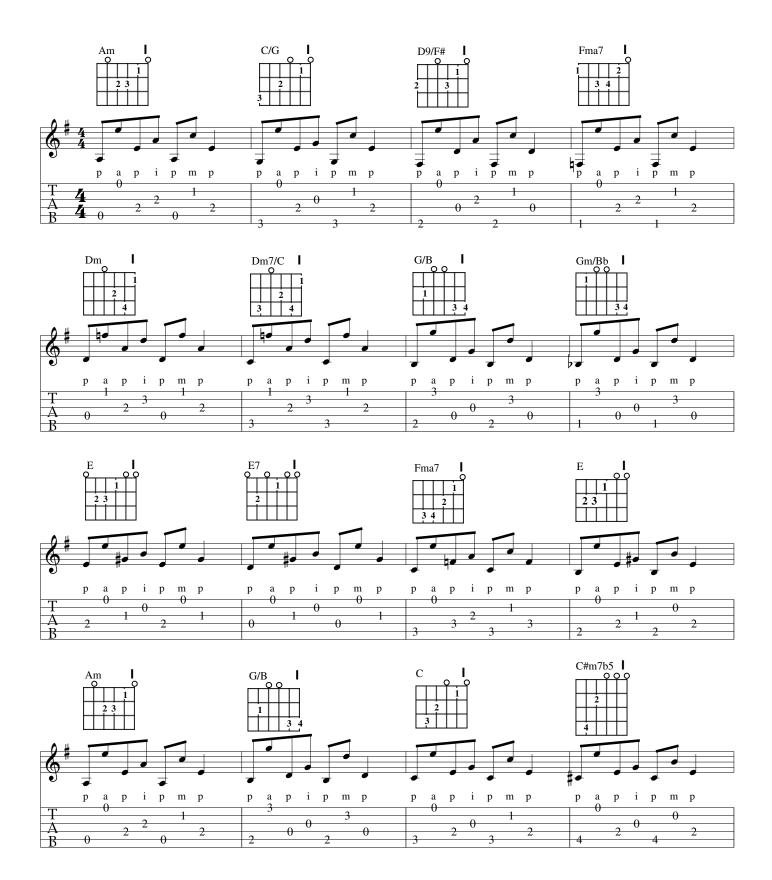


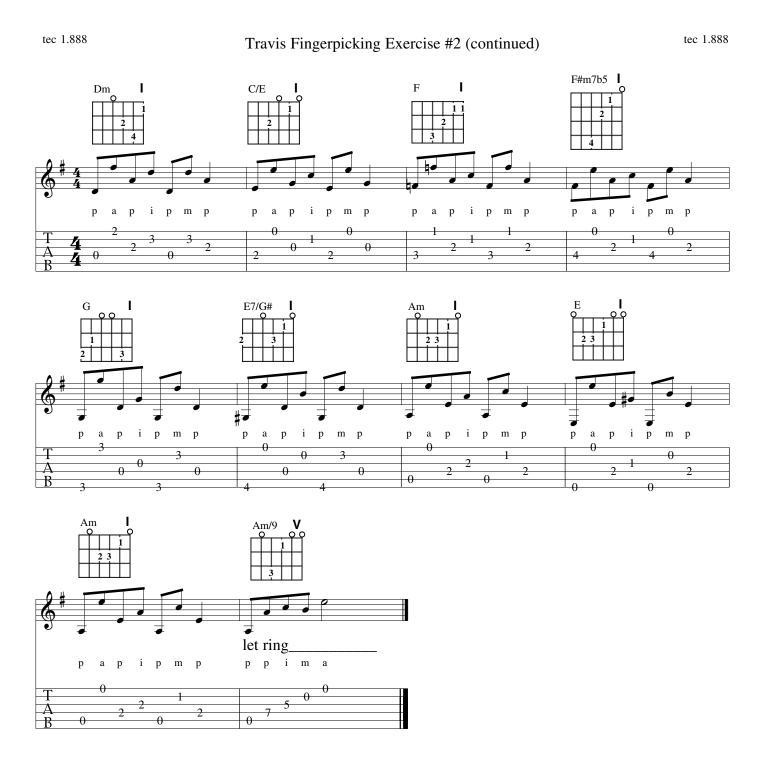


Adding notes to the end of the second through fourth beats and playing two notes on the first beat.



Travis Fingerpicking Exercise #2





GENERAL CHARACTERISTICS OF THE FRETTING HAND

Index Finger (symbol: "1").

Advantages. The index is the finger used most often (1) as an "anchor" in hammers and pull-offs, (2) as the barré, (3) for playing two notes in sequence on the same string to change position.

Disadvantages. It is usually used with its middle knuckle positioned out toward the head of the guitar and lying down toward the fretboard. Therefore, it has to move a great distance to form certain chords where the finger tips are bunched up in a small area.

Since it is the finger farthest toward the head of the guitar, bends with the index finger can not be aided with other fingers.

The Span Between The Index and Middle Fingers.

Advantages. This is the widest span of the fretting hand fingers, allowing the index finger to reach far out of position toward the head of the guitar. The span is especially wide if the middle knuckle of the index finger is spread toward the head of the guitar.

Disadvantages. See disadvantages for the index finger above.

Middle Finger (symbol: "2").

Advantages. Bending may be aided with the index finger. The middle finger occasionally fingers two consecutive notes on the same string to change position.

Disadvantages. Barréing is somewhat awkward with the middle finger. Even so, it is easier for the beginning guitarist to bend the tip segment of the middle finger backwards than the tip segment of the ring finger. This flexibility allows the novice to do some barréing with the middle finger.

The Span Between the Middle and Ring Fingers.

Advantages. This span is wider than that between the ring and little fingers. However, conventional fingering avoids the use of the middle and ring fingers with an "empty" fret between them (spanning three frets).

Disadvantages. This span is smaller than that between the middle and index fingers.

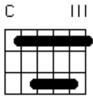
Ring Finger (symbol: "3").

Advantages. This is the finger used most often for bends. It can be aided with the index and middle fingers in bending.

The ring finger often fingers two consecutive notes on the same string to change position. It is the second most common finger used for barring (the index is most common).

Disadvantages. It is difficult for the beginning guitarist to bend the tip segment of the ring finger backwards. This inflexibility can make some third finger barréing difficult. Regular, gradual stretching will help greatly, but can take years.

Example: C major chord in third position, including the first string:



The Span Between the Ring and Little Fingers.

Advantages. This span is second most useful for reaching out of position notes (the index finger is the most useful).

Disadvantages. This narrow span often causes fingering of an out-of-position note with the little finger to be slow.

The Little Finger (Symbol: "4").

Advantages. The little finger is useful in reaching out-of-position notes. It is often useful in changing position by using it to fret two notes in succession on the same string.

Disadvantages. The little finger is the smallest and weakest of the four fingers. The ring finger is often substituted for the little finger for (1) bending notes, (2) sliding, and (3) changing position by fretting two notes in succession on the same string.

GENERAL CHARACTERISTICS OF THE PICKING HAND

The Thumb (symbol: "p" for pulgar in Spanish).

Advantages. The picking-hand thumb can be versatile. Some players, such as Wes Montgomery have used the picking-hand thumb almost exclusively to pluck notes. In conjunction with the pick, it can be used to play harmonics. In Folk or Classical playing it plucks most of the bass notes. "Thumb" harmonics (taught later) can be performed by glancing the string with the side of the thumb (opposite the index finger) as you pick. "Slap" harmonics can be played with the thumb using a quick twist of the forearm (a technique common used on Funk electric bass).

Disadvantages. Fingerpickers can accidentally hit and interrupt the movement of the index finger if they don't keep the thumb and index finger separated far enough.

Holding the Pick Between the Thumb and Index Finger.

Advantages. This is the most common manner of holding the pick. For most techniques, holding the pick between the ball of the thumb and the side of the index finger provides maximum stability, flexibility and control. It allows the other three fingers to be used for fingerpicking.

Disadvantages. Unless you use a thumb pick, the index finger and thumb cannot work independently. It is difficult to switch rapidly from picking notes to picking-hand fretting, unless the pick is held between the thumb and *middle* finger.

The Index Finger (symbol: "i" for indice in Spanish).

Advantages. The index finger is usually the most agile of the four fingers. The pick is usually held between the thumb and index finger.

Many harmonics techniques are performed with the index finger. The nail of the index finger can be used to produce harmonics by glancing the string with it as you pick. This must be done at fractions of the *vibrating* string length: 1/2, 1/3, 1/4, 2/3, etc.

You can strum without using a pick by using the index finger relaxed, bending the joints of the index finger and not moving the back of the hand. Strum down with the fingernail and up with the fingertip.

The index finger usually works best for picking-hand fretting. By holding the pick solely with the middle finger, you can hold onto the neck with the thumb on one side and the ring finger on the other. This provides maximum stability for picking-hand fretting with the index finger.

Disadvantages. Holding the pick between the thumb and index finger will slow you down when trying to switch from picking notes to picking-hand fretting. Fretting with the picking hand works better with picked notes when the pick is held between the thumb and middle finger.

Holding the Pick Between the Thumb and Middle finger.

Advantages. This aids greatly in switching quickly from picked notes to picking-hand fretting.

Disadvantages. General use of this pick grip prevents use of the first finger in fingerpicking while holding the pick.

The Middle Finger (symbol: "m" for medio in Spanish).

Advantages. Usually the longest finger, the middle finger has the greatest reach in fingerpicking. See advantages above for holding the pick between the middle finger and thumb.

Disadvantages. See disadvantages above for holding the pick between the middle finger and thumb.

The Ring Finger (symbol: "a" for annular in Spanish).

Advantages. Provides stability in picking-hand fretting with the index finger (see 5a above). The ring finger is almost always free to fingerpick. The fingernail of the ring finger can be used to produce harmonics by glancing the string with it as you pick.

Disadvantages. The ring finger is usually shorter and has less independent movement than the index and middle finger.

The Little Finger ("menique" in Spanish)

The little finger is rarely used for fingerpicking. It is used in Flamenco techniques such as the Rasgueado It is occasionally used to pluck strings, when all four fingers need to pluck notes simultaneously.

RIGHT HAND TECHNIQUE OF POPULAR GUITARISTS

Right hand technique has been a mystery for many Rock guitarists. In the fifties and sixties, creativity came before technique. Speed was not so important as was expression of the sexual and political revolutions occurring in American youth. When John McLaughlin hit the scene in the early seventies, the demand for faster, refined right hand technique rapidly increased.

Rock guitarists who began playing in the fifties were usually taught a Jazz or Bluegrass picking style. Although a good foundation, those picking styles eventually needed modification for modern Rock. The right wrist began to flatten down against the guitar and demands for speed pressed the anatomy to its limits.

Since 1965, I've transcribed thousands of Rock guitar solos. While teaching and performing these solos, it became evident that right hand technique was usually the last thing in the way of attaining the velocities emerging in Rock guitar solos in the seventies and eighties.

In 1986, I completely re-evaluated my right hand technique by pursuing my natural muscle movements, economy of motion and relaxation. In a few months, my speed and accuracy greatly increased!

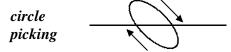
In my continuing aspiration for better right hand technique, I recently studied video footage of thirty top Rock guitarists. The aspects I looked for were:

manner of holding the pick wrist position anchoring right hand tension dependence on the left hand for speed circle picking versus wrist picking wrist quiver vs. elbow quiver alternate picking vs. sweep picking

Players respected for having the most control seemed to have the least tension in the hand and arm. Those with less control appeared to depend on the left hand for speed with hammer-ons, pull-offs bends and slides.

Most held the pick between the thumb and first fingers. Some held it with the thumb, index and middle so they could perform right hand tapping with the index finger in a phrase of mostly picked notes. Others spread the index and middle fingers or pressed the middle finger against the index at the nail for support.

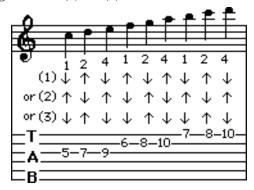
Metal players tended to use their wrist bent backwards about 15° and rested the heel or pinky side (between the pinky and the wrist) of their hand on the bridge. Jazz or acoustic-influenced players tended to bend their wrist inward 5° to 15° and touch the pickguard with one or two free fingers.



Only one out of thirty used circle picking, which involves small movements in the fingers. To grasp this technique, draw a straight line on a piece of paper (representing the string), hold a pencil between your thumb and index fingers as you would a pick, and draw tiny clockwise ovals around the string (shown above).

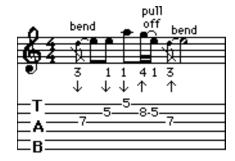
Most guitarists used wrist picking. When playing at very high speeds, they slightly rotated the forearm with a quivering (trembling) muscle action, which in turn moved the wrist and the pick. A few used a quivering action where the forearm bends at the elbow and the wrist generally didn't bend. These quivering movements were best performed without tightness.

Alternate picking predominated and is the most widely accepted style of picking. Any continuous series of notes should be picked alternately down-up-down-up, etc., or up-down-up-down, etc. These are illustrated in the example below with picking directions (1) and (2).



Frank Gambale was the only one to use a refined sweep picking style. With sweep picking, direction of the stroke and fingering is prepared. You alternate pick on each string. When you move to another string, the note is picked in the same direction used to approach it. This is shown above with picking direction (3).

Rockers sometimes picked consecutive strokes in the same direction for arpeggios or in the context of a "flash" lick:



Take advantage of right hand characteristics of great guitarists and be aware of how your natural tendencies can bring your individual style and techniques to new heights.

The results of my study of the right hand techniques of popular guitarists is shown on the following pages:

Artist/Guitar	holds pick between	wrist position	anchoring	right hand tension	depends on left hand for speed.
BELEW, ADRIAN strat	Between thumb and 1st.	Backbent 15°	Heel of hand on bridge. Touches pickguard with pinky and third. Sometimes no anchor.	Light.	None.
BERRY, CHUCK Gibson 335	Between thumb and 1st.	Fairly straight.	Pinky on pickguard. Pinky side of hand sometimes on bridge.	Light.	Speed is unimportant in his style.
CAMPBELL, VIVIAN strat	Thumb & 1st.	Generally backbent 15-20°	Base of thumb on guitar body. Heel and pinky side of hand on bridge. Pinky on pickguard during skips.	Fairly tight.	Heavy for variety (not for speed).
CLAPTON, ERIC Les Paul, strat	Between thumb and 1st.	Backbent 15°.	Pinky side of hand on bridge. Pinky on pickguard.	Fairly light.	Fairly heavy.
DiMEOLA, AL Les Paul type	Between thumb and 1st.	Backbent 15°.	Heel of hand on bridge.	Light.	None.
EMMETT, RIK Gibson type	Between thumb and 1st.	Bent inward 15°.	Pinky side of hand on bridge for faster passages. Often touches pickguard with pinky and third.	Light.	None.
FLACKE, RAY tele	Between thumb and 1st.	Backbent 15°.	Heel and pinky side of hand on bridge.	Fairly light.	Heavy dependence for effect, but not for speed.
GAMBALE, FRANK strat type	Between thumb and 1st. Keeps fingers 1, 2 and 3 together in a half fist.	Backbent 15°.	Heel of hand on bridge	Fairly light.	Great, since fingerings are prepared for sweeping.
GARCIA, Jerry Gibson type	Between thumb and 1st.	Backbent 5-10°.	Pinky (sometimes with third) on pickguard. Side of hand (base of pinky) sometimes on bridge.	Light.	Some dependence for effect, but not for speed.
GILBERT, PAUL strat type	Between thumb and 1st.	Backbent 15°.	Palm sometimes touches bridge, particulary for muting or certain tones.	VERY light.	Some dependence for effect, but not for speed.
GILLIS, BRAD strat	Between thumb and 1st.	Backbent 15°.	Pinky side of hand on bridge. Brushes against pick- guard with pinky and third.	Light.	Heavy dependence for effect, but not for speed.
HENDRIX, JIMI strat	Between thumb and 1st.	Bent 20°. Forearm rotated 45° so palm is in player's view.	Pinky side of hand on bridge. Pinky brushed against pickguard.	Light.	Fairly heavy.
LEE, ALBERT Gibson, tele, acoustic	Between thumb and 1st.	Backbent 15°.	Pinky side of hand on bridge.	Fairly light.	Heavy dependence for effect, but not for speed.
LEE, ALVIN Gibson 335	Between thumb and 1st.	Backbent 5-10°.	Heel of hand on bridge. 2nd, 3rd and pink often rest on pickguard.	Light.	Some dependence for effect, but not for speed.
LEE, JAKE E. strat	Between thumb and 1st.	Backbent 15°.	Side of hand (base of thumb) on bridge.	Light.	Heavy dependence for effect, but not for speed.
LIFESON, ALEX strat/Paul	Thumb and 1st.	Straight or slightly bent inward (5°).	Ring and pinky on pickguard.	Light, except when at top speed.	Little.

Artist/Guitar	circle picking	wrist picking	wrist quiver	elbow quiver	alternate picking	sweep picking
BELEW, ADRIAN strat	NONE NOTED.	On slow and moderate passages.	Unknown.	Unknown.	Generally, but plays phrases of predomi- nant downstrokes for emphasis.	Probably.
BERRY, CHUCK Gibson 335	NONE NOTED.	Only.	Generally doesn't play fast enough to require it.	NONE.	Rare. Generally picks all downstrokes.	NONE.
CAMPBELL, VIVIAN strat	NONE NOTED.	On slow and moderate passages.	Performed by rotating the forearm & bending at the elbow.	see wrist quiver	Generally	Yes, in the context of "flash" rock licks, but not developed into a refined style.
CLAPTON, ERIC Les Paul, strat	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Generally, but plays phrases of predomi- nant downstrokes for emphasis.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
DiMEOLA, AL Les Paul type	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Almost always.	Probably not.
EMMETT, RIK Gibson type	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Almost always.	Probably not.
FLACKE, RAY tele	NONE NOTED.	On slow and moderate passages. Plucks arpeggios with pick, 2nd finger and 3rd finger.	Generally doesn't play fast enough to require it.	NONE.	Generally, but plays phrases of predomi- nant downstrokes for emphasis.	NONE
GAMBALE, FRANK strat type	NONE NOTED.	On slow and moderate passages.	Not needed with his sweeping style.	NONE	On each string, but always picks in the direction of approach to a new string.	Definitely!! He works out ONE fingering for each scale to be used in ALL positions.
GARCIA, Jerry Gibson type	NONE NOTED.	Only.	Generally doesn't play fast enough to require it.	NONE.	Generally, but plays phrases of predominant downstrokes and slurs for slower melodies.	Probably not.
GILBERT, PAUL strat type	NONE NOTED.	On slow and moderate passages.	Performed by VERY slight rotation of the forearm.	NONE.	Almost always.	Generally reserved for apreggios.
GILLIS, BRAD strat	NONE NOTED.	On slow and moderate passages.	see elbow quiver.	Performed by bending at the elbow.	Generally, except skims arpeggios.	On arpeggios.
HENDRIX, JIMI strat	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Generally, but played phrases of predominant downstrokes for emphasis.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
LEE, ALBERT Gibson, tele, acoustic	NONE NOTED.	On slow and moderate passages. Plucks arpeggios with pick, 2nd finger and 3rd finger.	Generally doesn't play fast enough to require it.	NONE.	Generally, but played phrases of predomi- nant downstrokes for emphasis.	NONE
LEE, ALVIN Gibson 335	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Almost always.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
LEE, JAKE E. strat	NONE NOTED.	On slow and moderate passages.	see elbow quiver.	Performed by bending at the elbow	Generally, except skims arpeggios.	On arpeggios.
LIFESON, ALEX strat/Paul	NONE NOTED.	On slow and moderate passages.	see elbow quiver	Performed by bending at the elbow	Generally.	Probably not.

Artist/Guitar	holds pick between	wrist position	anchoring	right hand tension	depends on left hand for speed.
LUKATHER, STEVE strat	*		Palm sometimes touches bridge, particulary for muting or certain tones. Pinky on pickguard.	Light, except tight on elbow quiver	Heavy dependence for effect, but not for speed.
MALMSTEEN, YNGWIE - strat type	Thumb and 1st.	10-15° backbent.	Palm sometimes touches bridge, particulary for muting or certain tones.	VERY light.	Some dependence for effect, but not for speed.
McLAUGHLIN, JOHN Gibson type	Thumb & 1st, with pressure from the 2nd against 1st at the nail.	Picking 1st to 6th: forearm rotated 15- 20° backward, little finger in player's view. Picking 6th to 1st: forearm rotated inward15-20° so palm is in player's view.	Sometimes at bridge, particularly for quiver.	Slight.	NONE.
METHENY, PAT Gibson type	1st & 2nd fingers spread.	Picking 1st to 6th: forearm rotated 15- 20° backward, little finger in player's view. Picking 6th to 1st: forearm rotated inward15-20° so palm is in player's view.	Forearm only.	VERY light.	Heavy dependence for effect, but not for speed.
MOORE, VINNIE strat	Thumb and 2nd, picking with the round edge. Picks very lightly with VERY light pick.	Backbent 15°.	Heel of hand on bridge.	Light.	NONE.
MORSE, STEVE tele	Thumb and 1st.	Fairly straight.	Pinky side of hand on bridge. Pinky laying on pickguard.	Moderately light.	None.
PAGE, JIMMY Les Paul, tele, strat	Thumb and 1st, sometimes incl. 2nd. Sometimes 2nd presses nail against nail of 1st.	Backbent 15-20°. Guitar body low and neck high, so hand & forearm are nearly perpendicular to strings.	Pinky side of hand on bridge.	Moderately light.	Some.
RICE, TONY Martin dreadnought	Thumb and 1st.	Backbent 5-10°.	Pinky (sometimes with 3rd) on pickguard.	Fairly light.	NONE
SANTANA, Carlos Les Paul type	Thumb and 1st. Thumb, index and middle before around 1986, thumb & index after.	Forearm rotated 45° so palm is in player's view. Predominant upstroke.	Pinky side of hand on bridge before around 1986, heel & side of hand after.	A little tight before 1986, light after.	Moderate for variety (not for speed).
SATRIANI, JOE strat type	Thumb and 1st.	Straight to 10° backbent.	Forearm nearly to wrist on guitar body. Often pinky side of hand on bridge, pinky & 3rd on pickguard.	Very light.	Heavy dependence for effect, but not for speed.
SCHON, NEAL Paul, strat type	Thumb and 1st.	Backbent 15°.	Pinky side of hand on bridge. Touches pickguard with pinky.	Light.	Heavy dependence for effect, but not for speed.
SCOFIELD, JOHN Gibson 335 type	Thumb and 1st.	Backbent 15°.	Touches pickguard and pickup cover with 2nd and 3rd fingers.	VERY light.	Uses slurs to make picking of arpeggios smoother.
VAN HALEN, EDDIE strat type	Usually thumb & 1st. Thumb, 1st & 2nd when mixing with right hand hammers & pull offs.	Generally backbent 15°. Palm turned up approx. 45° when using wrist quiver.	Side of hand on bridge.	VERY light.	Generally high.
WATSON, DOC Martin dreadnaught	Between thumb and 1st.	Backbent 5° so heel of hand is parallel with inside of forearm.	Forearm only.	Moderate.	NONE
WATSON, JEFF Les Paul	Between thumb and 1st.	Backbent 15°.	Heel of hand on bridge.	Light.	Some dependence for effect, but not for speed.

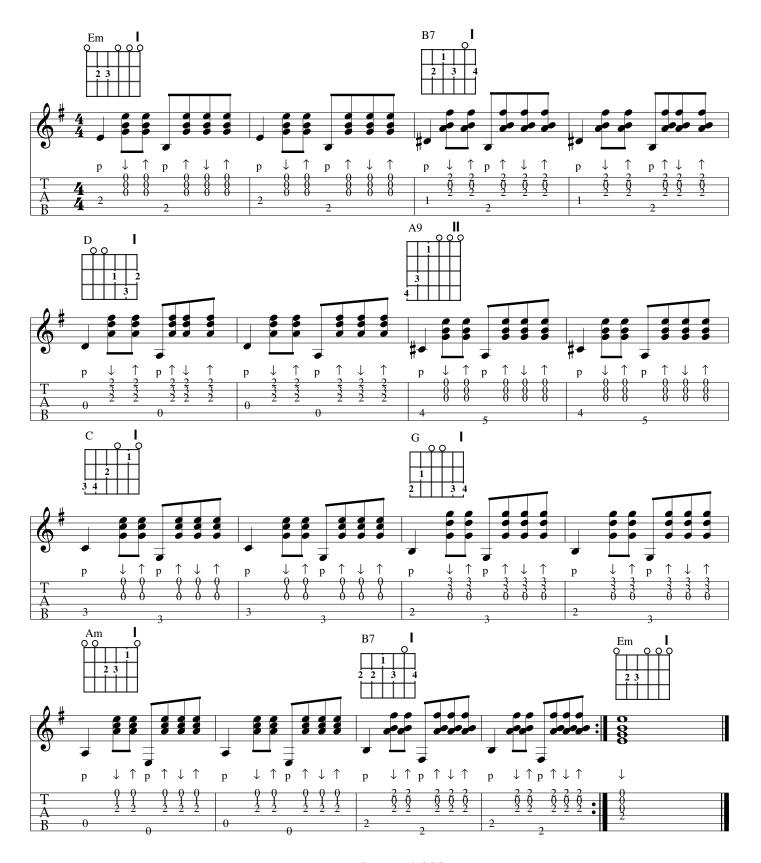
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Artist/Guitar	circle picking	wrist picking	wrist quiver	elbow quiver	alternate picking	sweep picking
LUKATHER, STEVE strat	NONE NOTED.	On slow passages	Rarelly performed by rotating the forearm, usually by elbow quiver.	Performed by bending at the elbow	Almost always.	Yes, in the context of "flash" rock licks and arpeggios, but not devel- oped into a refined style
MALMSTEEN, YNGWIE - strat type	NONE NOTED.	On slow and moderate passages. VERY small movements.	Performed by VERY slight rotation of the forearm.	NONE.	Almost always.	Generally reserved for apreggios. However, usually picks arpeggios alternate.
McLAUGHLIN, JOHN Gibson type	NONE NOTED.	On slow and moderate passages. VERY small movements.	Performed by bending wrist flat without much forearm rotation.	see wrist quiver	Almost always.	Unknown.
METHENY, PAT Gibson type	NONE NOTED.	On slow and moderate passages.	Performed by rotating the forearm.	see wrist quiver	Generally, but plays phrases of predominant downstrokes and slurs for slower melodies.	Probably not.
MOORE, VINNIE strat	NONE NOTED.	On slow and moderate passages.	see elbow quiver.	Performed by bending at the elbow	Generally, except skims arpeggios.	On arpeggios.
MORSE, STEVE tele	NONE NOTED.	On slow and moderate passages.	see elbow quiver	Performed by bending at the elbow	Almost always.	Probably not.
PAGE, JIMMY Les Paul, tele, strat	NONE NOTED.	On slow and moderate passages.	see elbow quiver.	Performed by bending at the elbow	Generally.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
RICE, TONY Martin dreadnought	Mainly.	Slight involvement of wrist in circle picking.	Generally doesn't play fast enough to require it.	NONE.	Generally, but occasionally picks twice in the same direction in an approach to a new string.	None, except as noted under alternate picking.
SANTANA, Carlos Les Paul type	NONE NOTED.	On slow and moderate passages.	Performed by rotating the forearm.	see wrist quiver	Generally. Picks passages of all upstrokes for melodic emphasis.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
SATRIANI, JOE strat type	NONE NOTED.	On slow and moderate passages.	Performed by slight rotation of the forearm.	NONE.	Almost always. Picks passages of mostly downstrokes for melodic emphasis.	Yes, in the context of "flash" rock licks & arpeggios, but not in a refined style.
SCHON, NEAL Paul, strat type	NONE NOTED.	On slow and moderate passages.	Performed by rotation of the forearm.	NONE.	Generally, but plays phrases of predomi- nant downstrokes for emphasis.	Yes, in the context of "flash" rock licks, but not developed into a refined style.
SCOFIELD, JOHN Gibson 335 type	Somewhat involved in wrist picking.	On slow and moderate passages.	Generally doesn't play fast enough to require it.	NONE	Generally, but plays phrases of predominant downstrokes and slurs for slower melodies.	Probably not.
VAN HALEN, EDDIE strat type	NONE NOTED.	Most of the time.	Performed by rotating the forearm.	see wrist quiver	Generally	Yes, in the context of "flash" rock licks, but not developed into a refined style.
WATSON, DOC Martin dreadnaught	NONE NOTED.	Picks from the elbow!	NONE	NONE	Religiously.	NONE
WATSON, JEFF Les Paul	NONE NOTED.	On slow and moderate passages.	see elbow quiver	Performed by bending at the elbow	Generally, except skims arpeggios.	On arpeggios.

Minor Progression With Descending Bass

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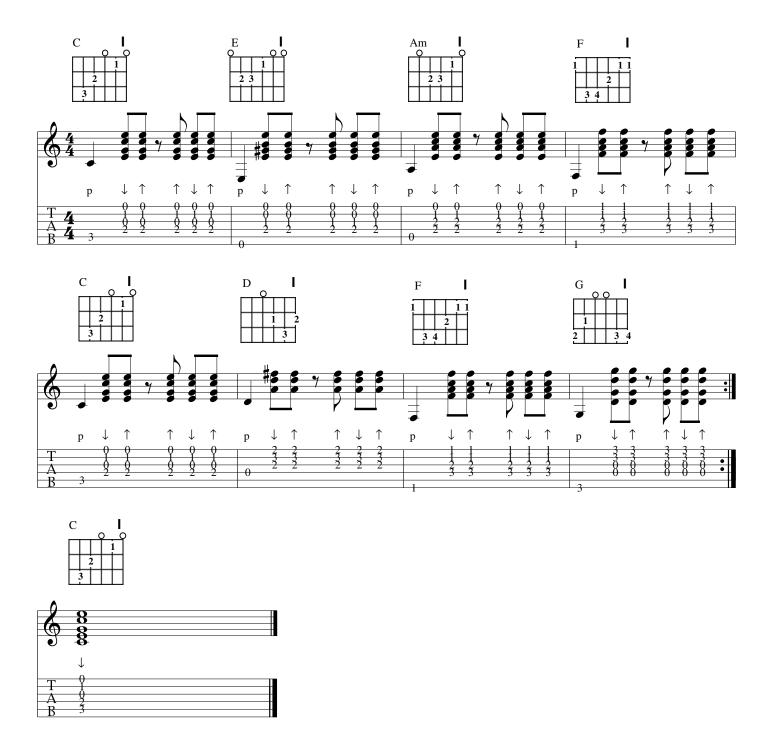
Thumb Pluck and Index Strum



Thumb Pluck and Index Strum Technique

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Pluck the bass notes with the thumb, bending it only at its base. Strum the chords with the index finger, using a flicking motion. Bend the index finger at the joint where it connects to the hand and at the middle joint. Leave the tip joint of the index finger very relaxed, so the tip segments acts like the bristle-end of a paint brush. Try to keep the main body of the plucking hand (other than the fingers) calm and un-involved.



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Minor Progression With Descending Bass

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Pick Bass and Finger Pluck

Pick the bass notes with a guitar pick, holding it between the thumb and index finger. Pluck the chords with the three remaining fingers. The middle and ring fingers must bend more than the little finger, so the tips of all three of them are aligned. Mute after each pair of chords with the fretting hand, so it sounds like a reggae part.



Pick Bass, Finger Pluck Blues #1 Option 1: pluck the bass notes with the thumb and the two note chords with the index and middle.

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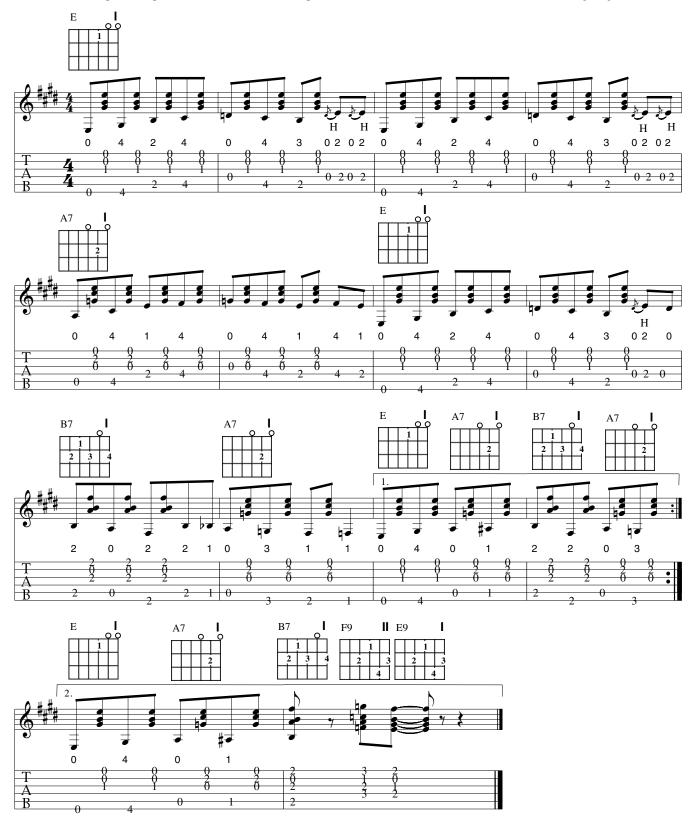
Option 2: pluck the bass notes with the pick and the two note chords with the middle and ring fingers.



Pick Bass, Finger Pluck Blues #2

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Option 1: pluck the bass notes with the thumb and the two note chords with the index and middle. Option 2: pluck the bass notes with the pick and the two note chords with the middle and ring fingers.

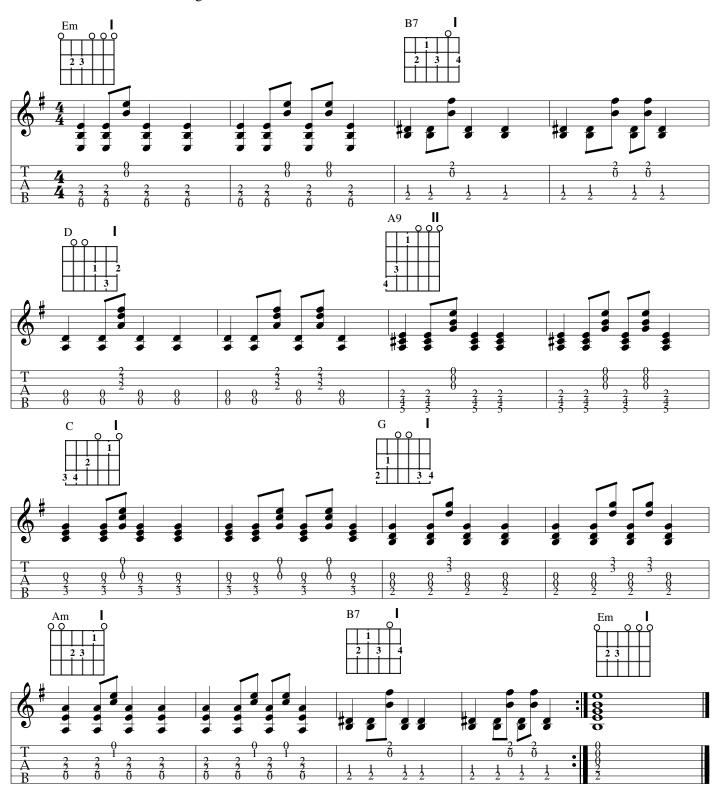


Minor Progression With Descending Bass

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Thumb Strum, Fingers Pluck

Keep the wrist two or three fingers width from the guitar body. Strum the bass notes with the side of your thumb (the side opposite the index finger). Pluck the high notes (generally on strings 1 and 2) with the index and middle fingers.

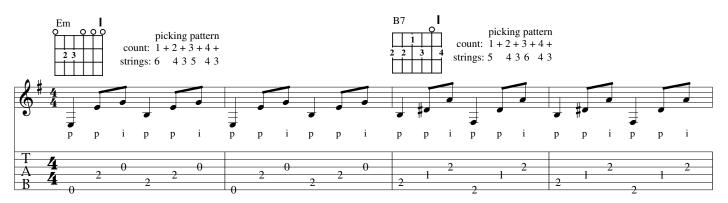


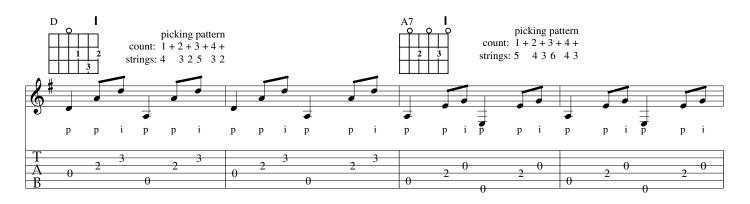


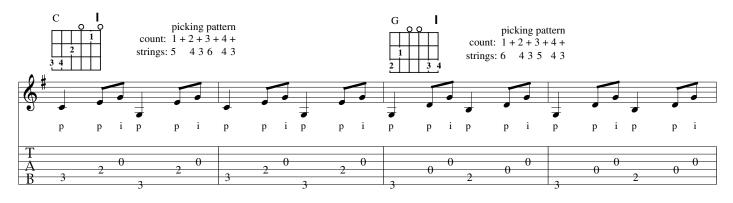
Minor Progression With Descending Bass

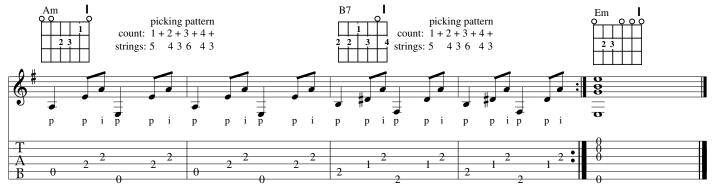
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Travis Fingerpick









p i p m p i

tec 1.976 tec 1.976 Minor Progression With Descending Bass Travis Fingerpicking (continued) picking pattern picking pattern count: 1 + 2 + 3 + 4 + 4count: 1 + 2 + 3 + 4 +strings: 1 strings: 1 4 3 5 2 4 3 4 3 6 2 4 3 i p m p i i p m p i p m p A9 n3 picking pattern picking pattern count: 1 + 2 + 3 + 4 +count: 1 + 2 + 3 + 4 +strings: 1 strings: 1 3 2 5 1 3 2 4 3 6 2 4 3 p p m p p i p m p i i p m p i picking pattern picking pattern count: 1 + 2 + 3 + 4 +count: 1 + 2 + 3 + 4 + 4strings: 1 strings: 1 4 3 5 2 4 3 4 3 6 2 4 3 p m p p m p m p m p p p picking pattern picking pattern count: 1 + 2 + 3 + 4 +count: 1 + 2 + 3 + 4 +strings: 1 strings: 1 4 3 6 2 4 3

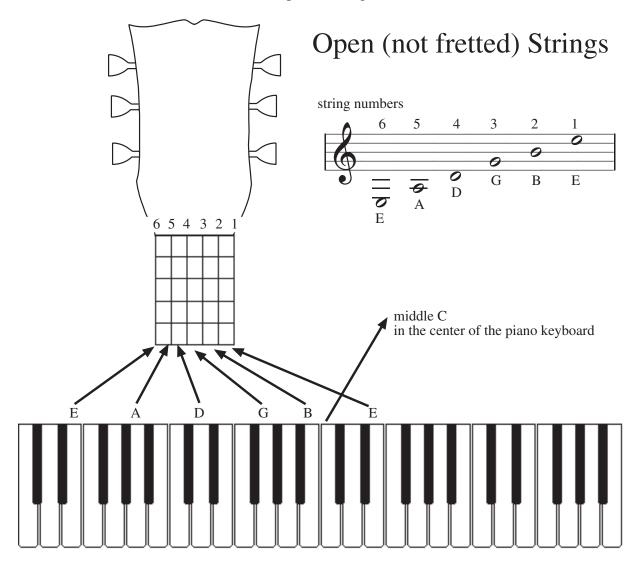
 $p\quad i\quad p\quad m\quad p\quad i$

 $p\quad i\quad p\quad m\quad p\quad i$

 $p\quad i\quad p\quad m\quad p\quad i$

Fretboard Note Names

If you know the names of the notes on the piano, the chart below should help you to learn the guitar note names. You may already know that the two pairs of keys on the piano without a black key between them are "B, C" and "E, F", the notes which are one fret apart on the guitar.



Memorizing the Fretboard Note Names.

Memorize the open-string note names with this sentence: $\underline{\mathbf{E}}$ at $\underline{\mathbf{A}}$ $\underline{\mathbf{D}}$ arn $\underline{\mathbf{G}}$ ood $\underline{\mathbf{B}}$ reakfast $\underline{\mathbf{E}}$ arly. The first letter of each word makes a list of the open-string names for the sixth through first strings.

Note names progress up each string *in alphabetical order:* A, B, C, D, E, F, G, A, etc. The distance between "B" and "C" and between "E" and "F" is one fret (not counting the fret on which you begin). All other alphabetical pairs (A to B, C to D, F to G or G to A) are two frets apart.

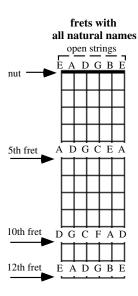
After memorizing the open string note names, memorize fifth, tenth and twelfth fret note names.

Distances in pitch between notes are called *intervals*. A *whole step* is a two-fret interval (not counting the fret on which you begin). A *half step* is a one-fret interval. One and one half steps is a three fret interval,

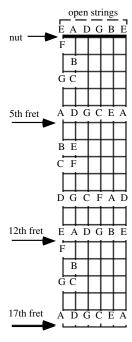
two steps is a four fret interval, and so on.

Use the sentences below to memorize the fifth and tenth fret note names (the first letter of each word lists the names on the sixth through first strings. The twelfth fret note names are identical to the open-string names.

fifth fret: <u>A</u>ll <u>Dogs</u> <u>G</u>o <u>C</u>razy <u>E</u>ating <u>A</u>nts tenth fret: <u>D</u>on't <u>G</u>o <u>C</u>razy <u>F</u>or <u>A</u> <u>D</u>og



Next, memorize fretted notes on the sixth and fifth strings. If you have already memorized the note names on the fifth, tenth and twelfth frets, you can locate all others by moving alphabetically up or down any string from these reference points.

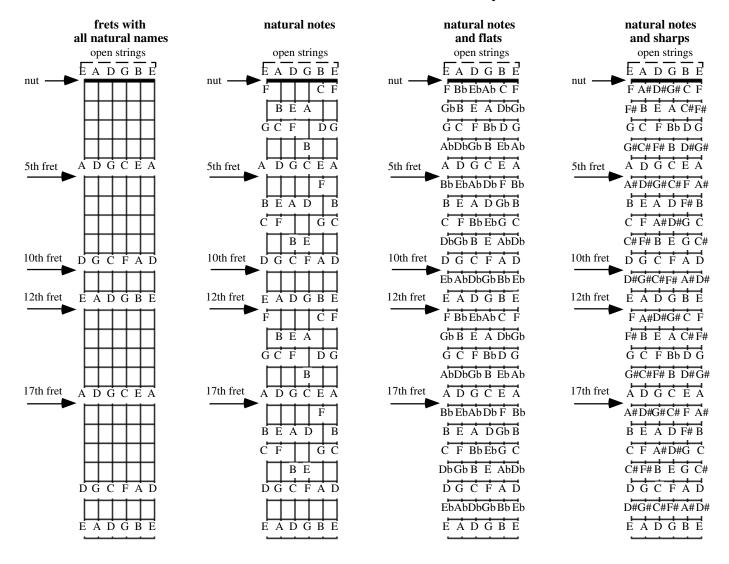


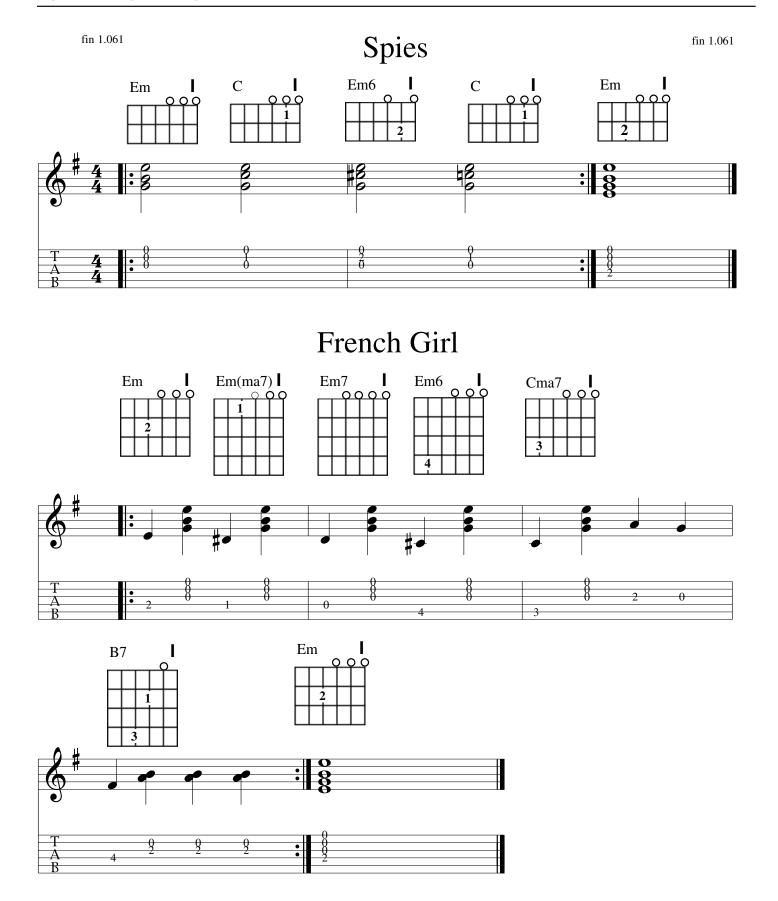
Chords are commonly named after notes on the fifth and sixth strings. By using the octave shapes you will learn later in this section, you can identify note names on the fourth through first strings in reference to those you have memorized on the sixth and fifth strings.

Natural notes have no sharp (#) nor flat (b). They are indicated with a plain letter "A" through "G", or the letter followed by the "\(\beta\)" (natural) symbol. Notes with a sharp in their name are played one fret higher than the natural versions of the same letter-named note. Notes with a flat in their name are played one fret lower than the natural versions of the same letter-named note. Enharmonic notes are those which have two or more names for the same note, such as A# and Bb, Cb and B or C# and Db.

Fretboard Note Names With Naturals and Flats

letter names are shown above the fret they name



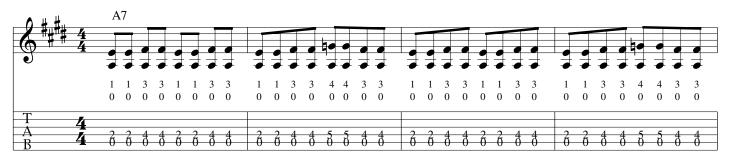


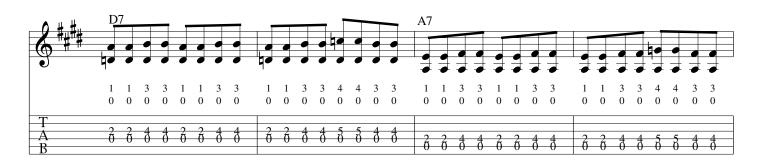
One Finger Blues in A

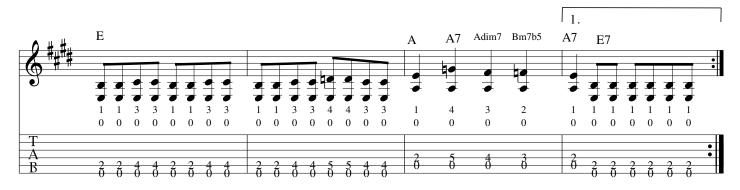
fin 1.062

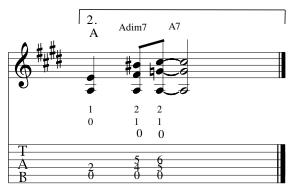
pick this with all downstrokes

Swing Eighths



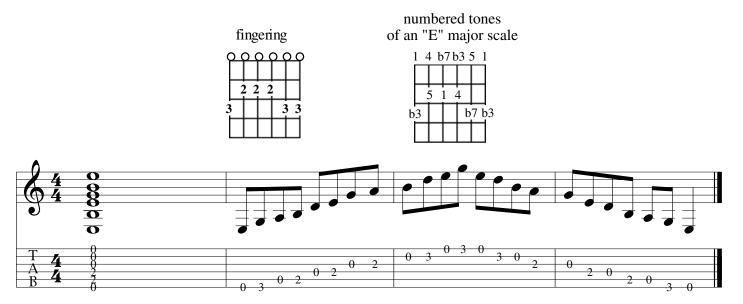






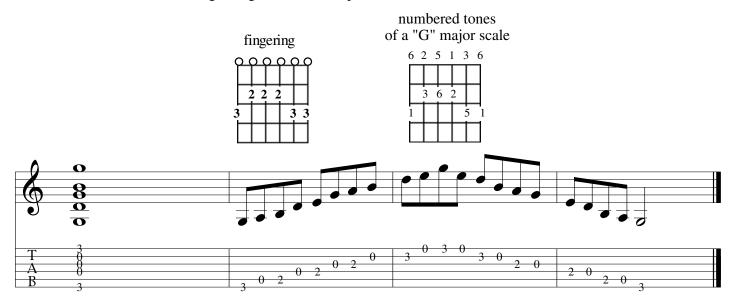
Open Position E Minor 7/11 Pentatonic Scale

"E minor seven eleven" (E minor 7/11, or Em7/11) is a chord name. I use chord names for pentatonic scales, to standardize their names. Otherwise, various authors, music critics and interviewed musicians will collectively use a huge collection of confusing names for the scales. I realize "Em7/11" is a long name, but when you learn chord construction, this (or any of my other pentatonic scale names) will make perfect sense.



Open Position G Major 6/9 Pentatonic Scale

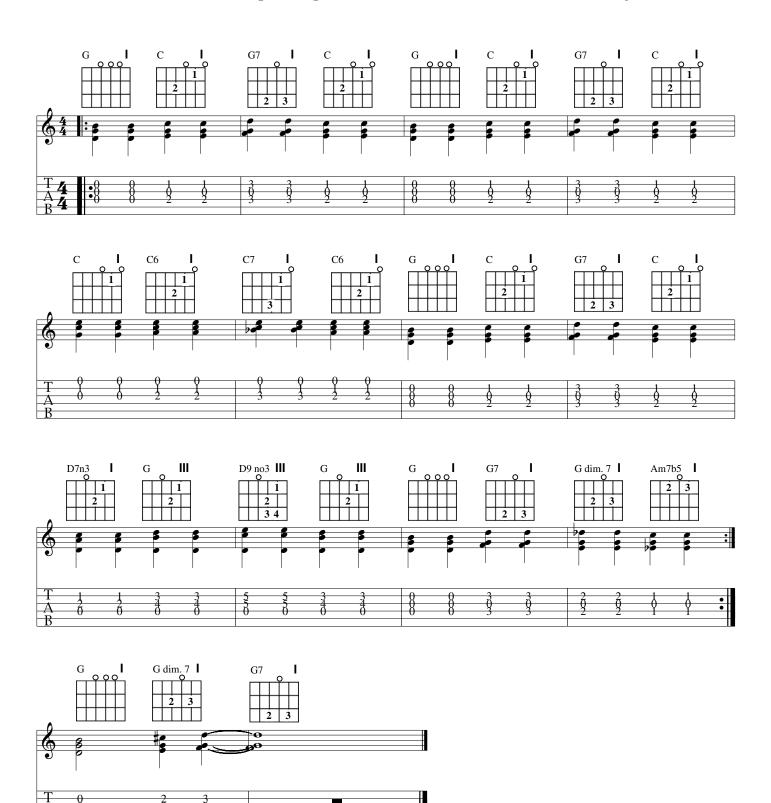
"G major six nine" (G 6/9) is a chord name. I use chord names for pentatonic scales, to standardize their names. See the note above regarding E minor 7/11 pentatonic scale.



Two Finger Blues

fin 1.110

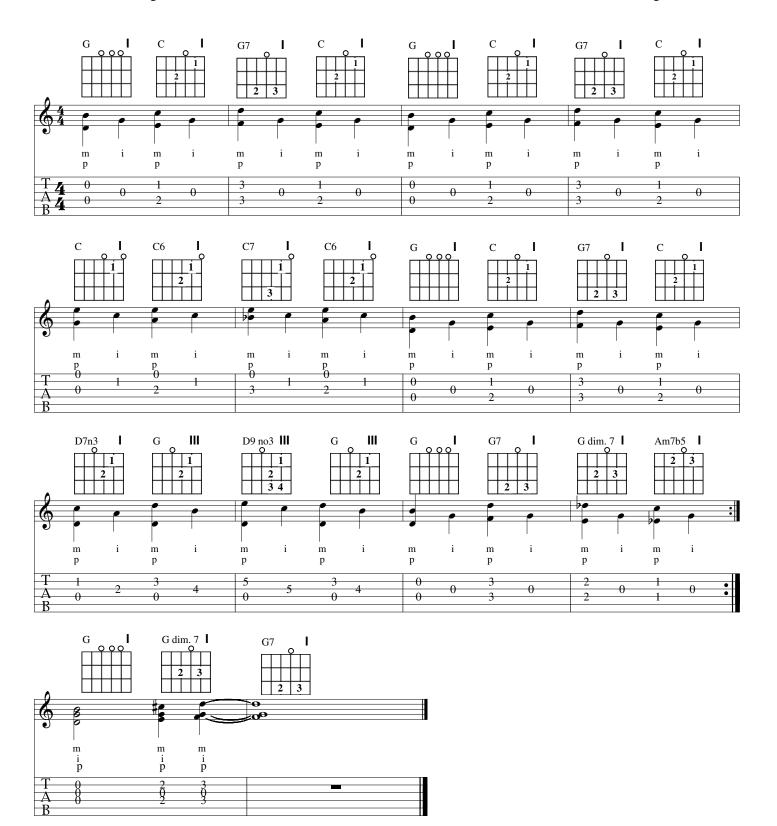
strum this with the pick or pluck with the thumb, index and middle fingers



Two Finger Blues

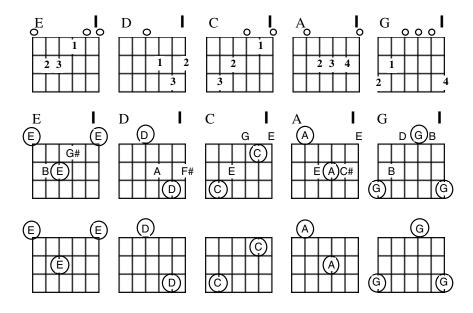
fin 1.111

Pluck the pairs of notes with the thumb and middle fingers. Pluck the single notes with the index finger. Pluck the three note chords at the end with the thumb, middle and index fingers.



THE FIVE CHORD ROOT SHAPES

Each of these shapes represent the shape of the notes after which the chord is named.

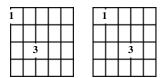


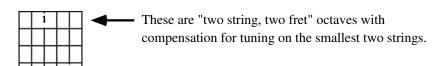
THE SEVEN OCTAVE FINGERINGS

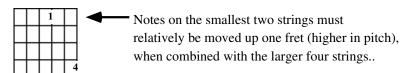
The diagrams below can be played in any position (at any fret). Numbers within the diagrams indicate fretting fingers.

Primary Octave Fingerings

These are "two string, two fret" octaves.



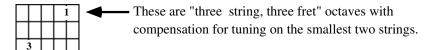


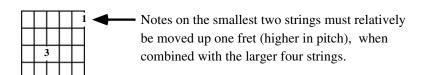


Secondary Octave Fingering

The only un-compensated "three string,three fret" octave (compensated versions are shown at the right).

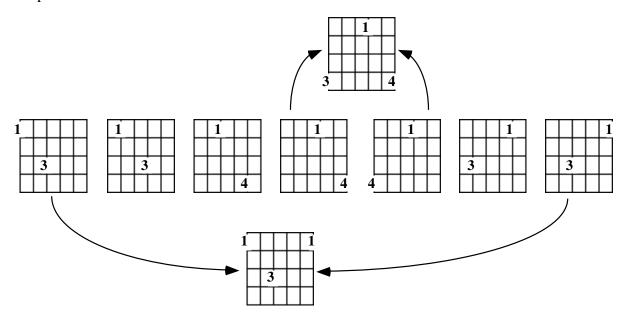




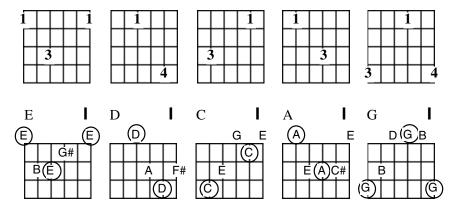


THE FIVE OCTAVE SHAPES

By combining two pairs of the seven octaves and using the other three octaves unchanged, five octave shapes are produced.



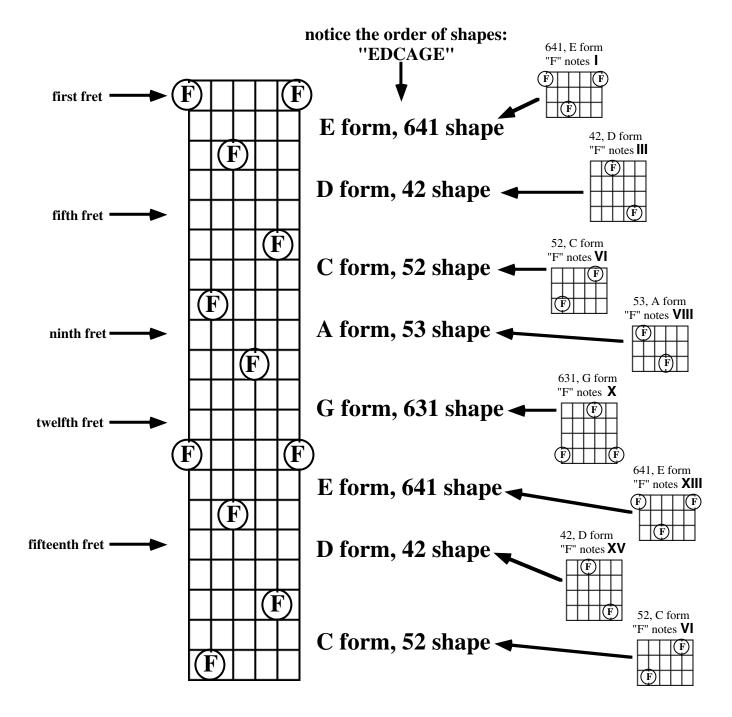
Notice how each of the five octave shapes occurs in one of the five chord root shapes shown below.



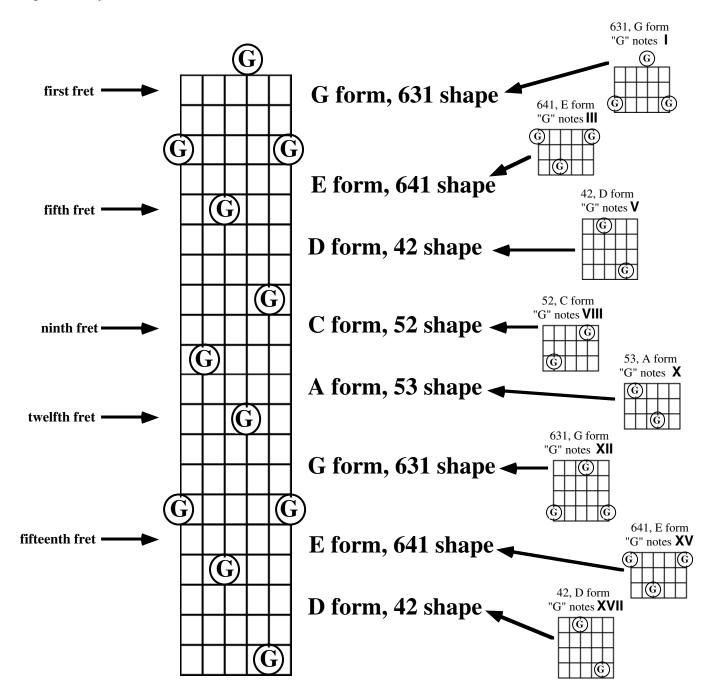
The five octave shapes are named after either the strings on which they occur (641 shape) or the chord root shape they represent (E form).

641 shape	42 shape	52 shape	53 shape	631 shape
E form	D form	C form	A form	G form
3	1 4	3	3	3 4

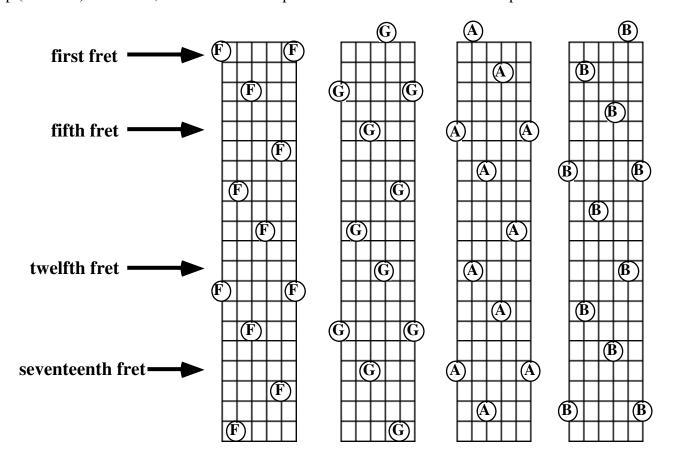
Here are is a full-fretboard diagram of "F" notes. Notice that they occur in octave shapes, in the cyclic order "EDCAGE".



"G" notes occur in the same respective order of octave shapes, a whole step higher (two frets closer to the guitar body).



Every note occurs in the same series of octave shapes. Compare the diagrams below. "G" is a whole step (two frets) above "F", "A" is a whole step above "G" and "B" is a whole step above "A".



Open-Position One Note-Per-String Arpeggios

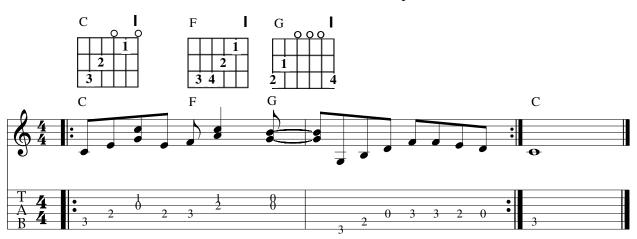
Performance Notes

Most of the chords involved in these examples should be held until another chord name appears.

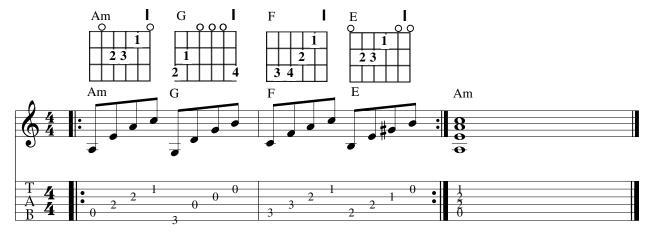
Chord Diagram Reminders

Roman numerals on the upper right of chord diagrams indicate the number of the top fret on the diagram. Circles shown above a string indicate the string is played open. Strings not marked are not played.

Sixties Rock Style



Spanish Surf Ballad In Duple Time



Open Position One Note-Per-String Arpeggios (continued)

fin 1.321

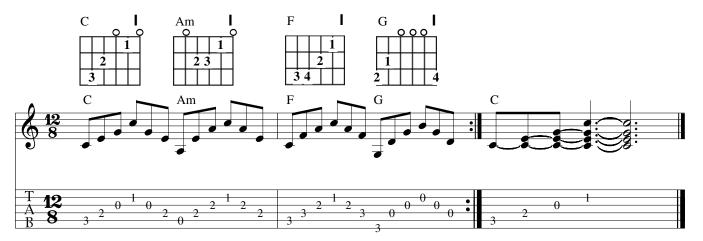
Sixties Rock Style Ballad In Duple Time



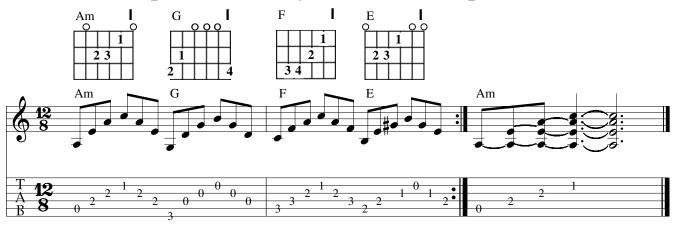
Open Position One Note-Per-String Arpeggios (continued)

fin 1.322

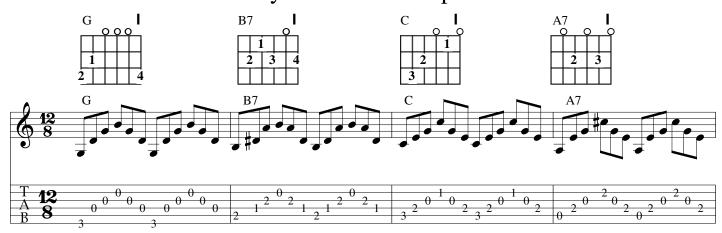
Fifties Style Ballad In Triple Time



Spanish Surf Style Ballad In Triple Time



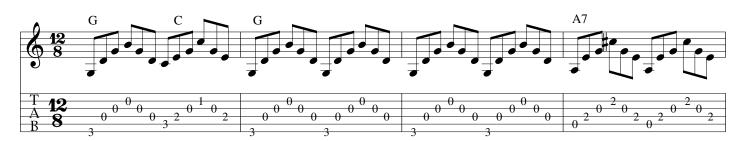
Sixties Style Ballad in Triple Time

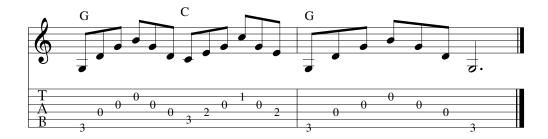


fin 1.323 fin 1.323 Open Position One Note-Per-String Arpeggios (continued)

Open Position One Note-Per-String Arpeggios (continued)

fin 1.324





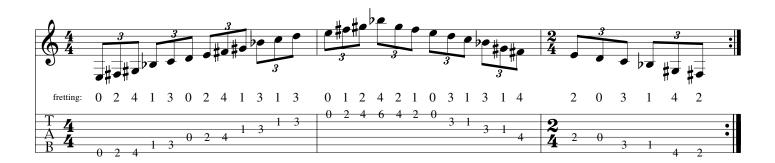


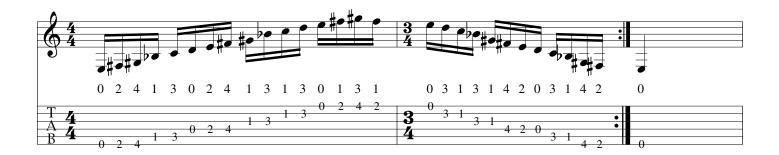


Open Position Whole Tone Scales

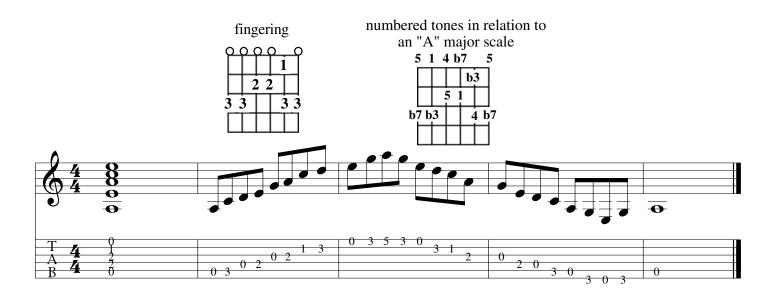
fin 1.385

You can use these later for weird jazz, film score or progressive stuff.

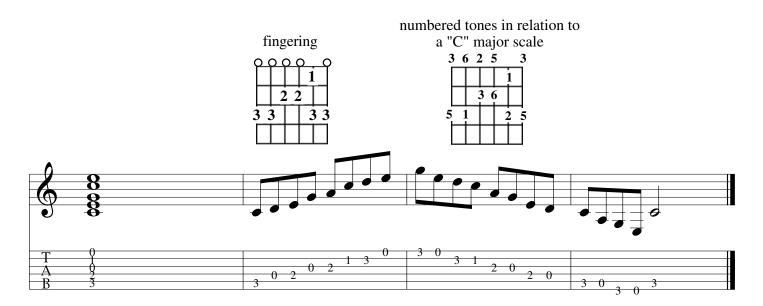




Open Position A Minor 7/11 Pentatonic Scale

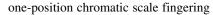


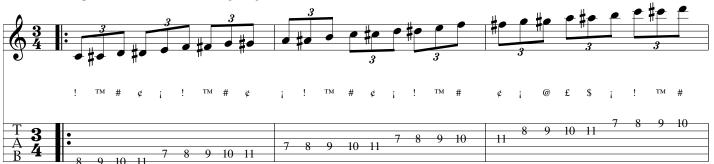
Open Position C Major 6/9 Pentatonic Scale

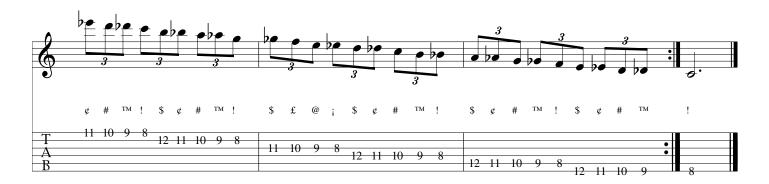


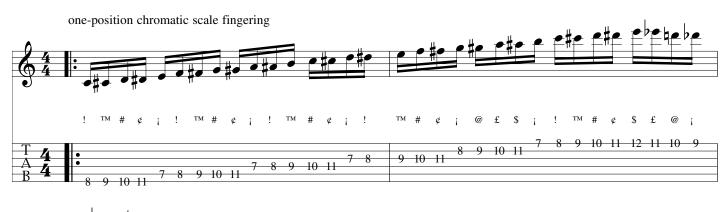
All-Fretted Chromatic Scale Fingering

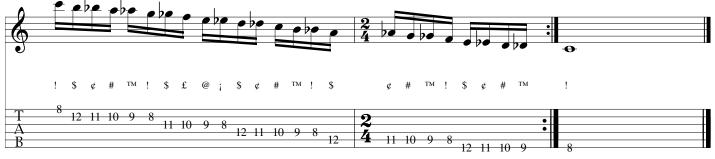
fin 1.445





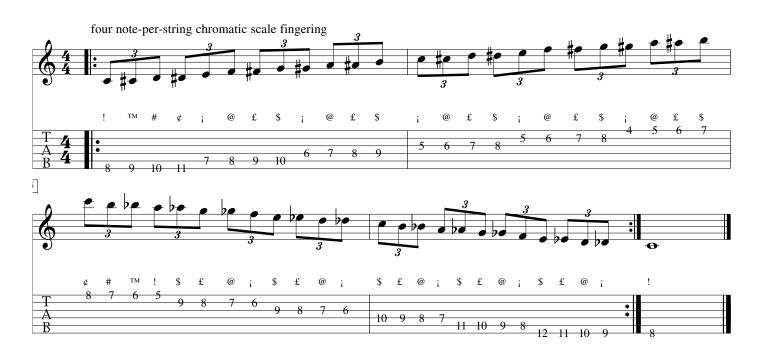


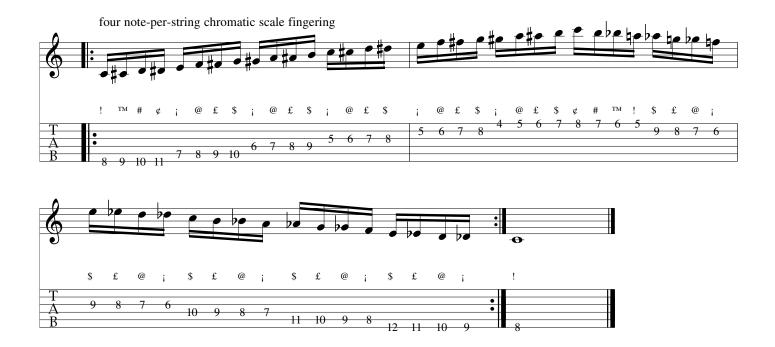




Chromatic Scale Fingering (continued)

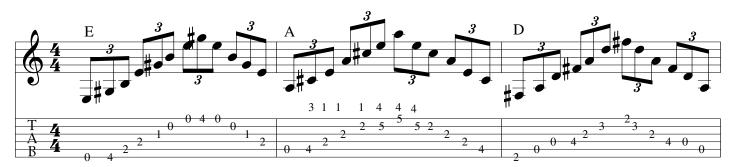
fin 1.446

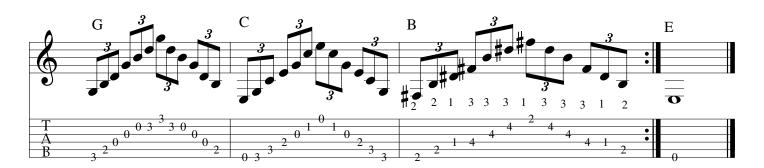




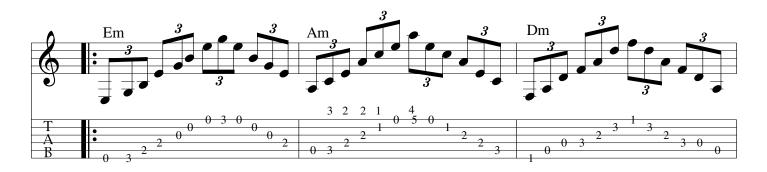
fin 1.521 fin 1.521

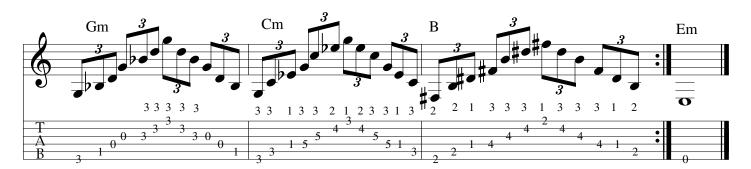
First and Second Position Major Arpeggios





First and Second Position Minor Arpeggios





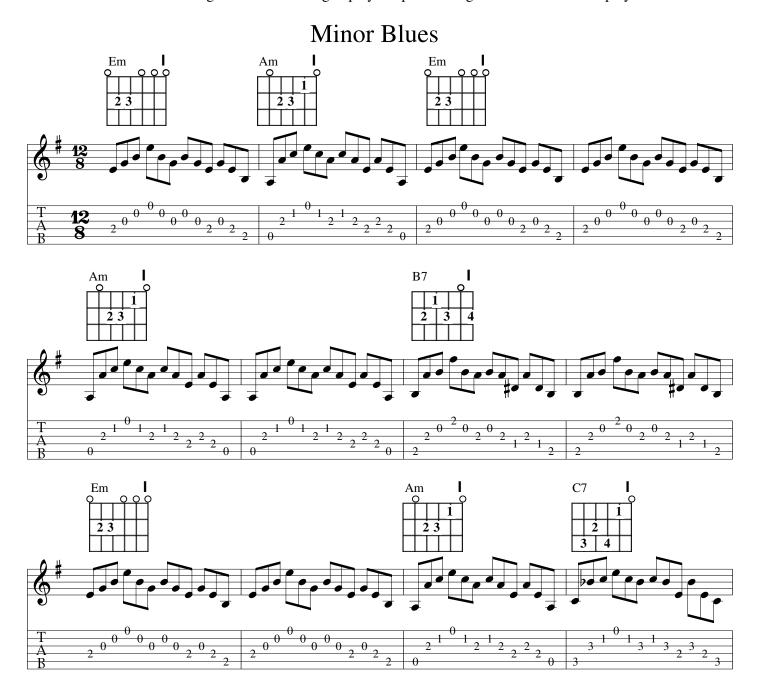
Open-Position One Note-Per-String Arpeggios with patterned arpeggios and bass lines

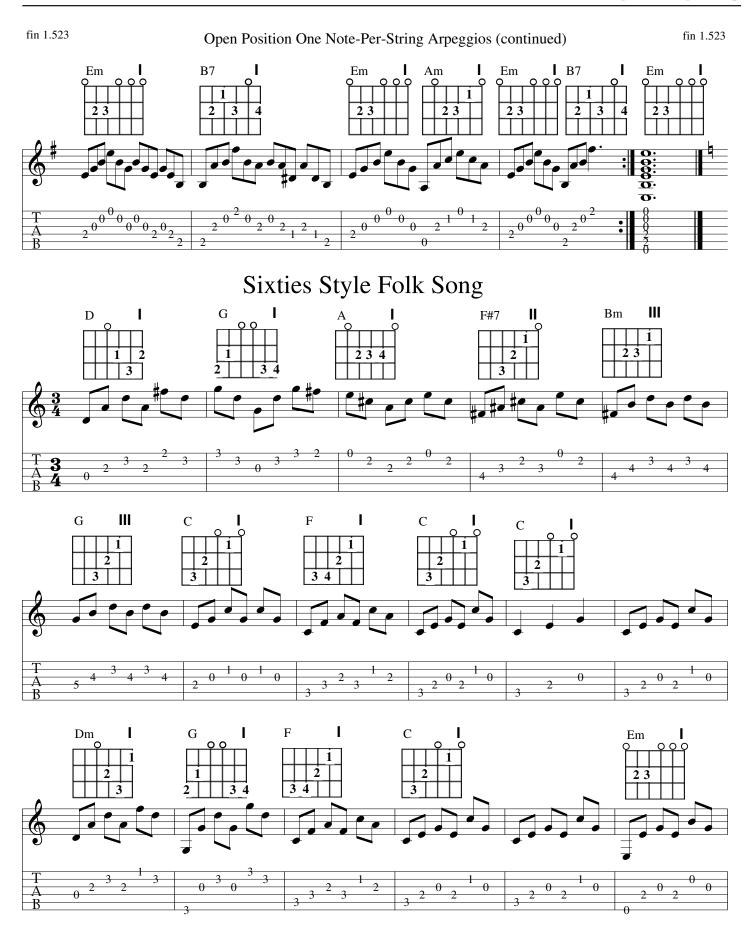
Performance Notes

Most of the chords involved in these examples should be held until another chord name appears.

Chord Diagram Reminders

Roman numerals on the upper right of chord diagrams indicate the number of the top fret on the diagram. Circles shown above a string indicate the string is played open. Strings not marked are not played.



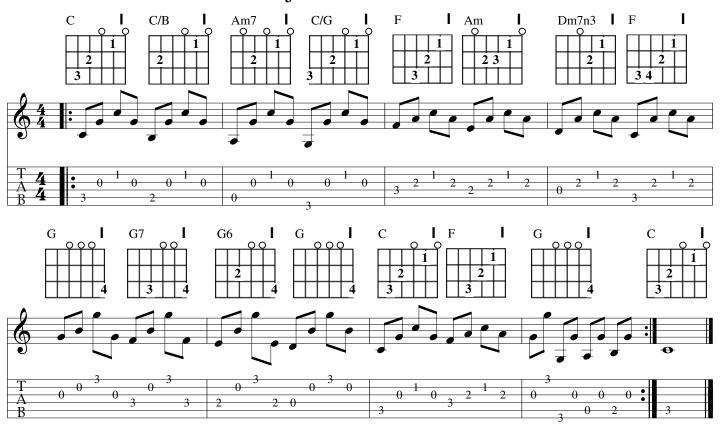


fin 1.524 fin 1.524 Open Position One Note-Per-String Arpeggios (continued)

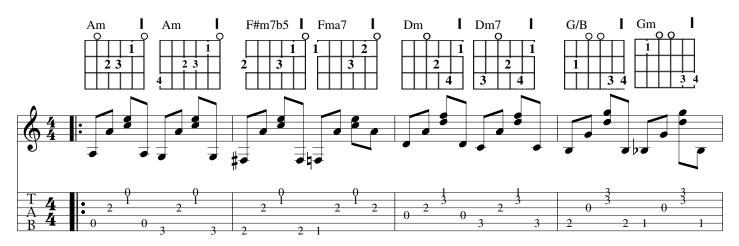
Open Position One Note-Per-String Arpeggios (continued)

fin 1.525

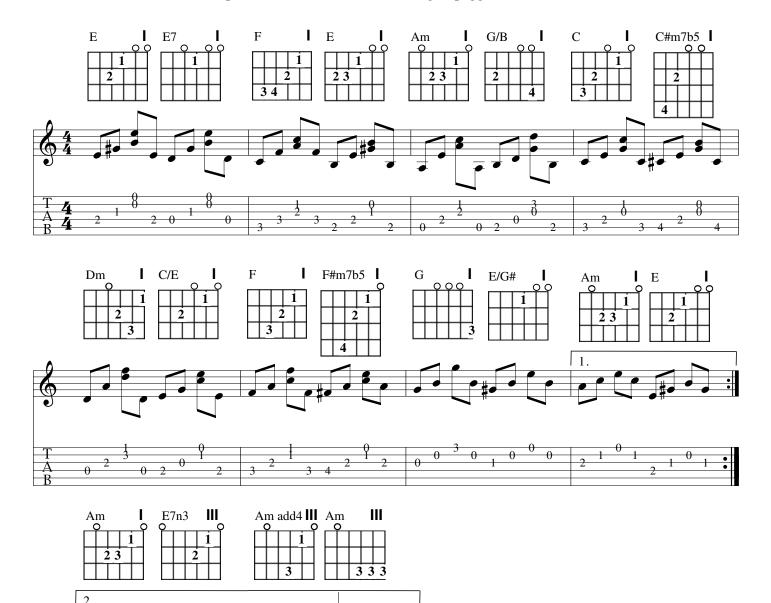
Major Classic Rock



Minor Classic Rock

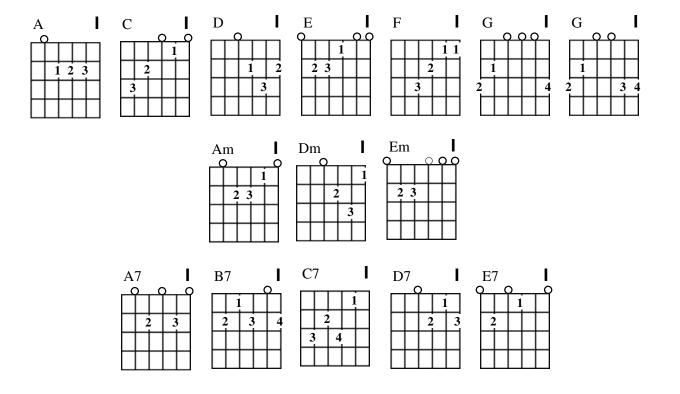


Open Position One Note-Per-String Arpeggios (continued)

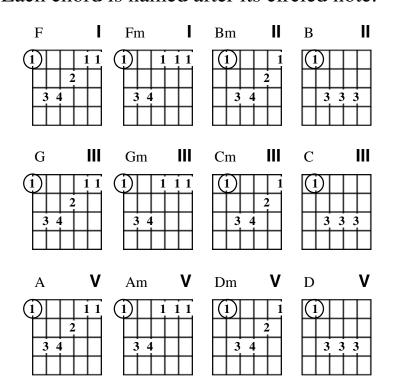


First Nineteen Chord Fingerings

fin 1.603



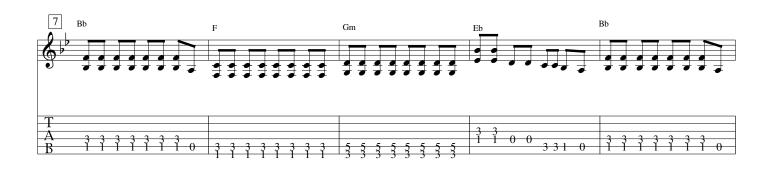
The chords below are movable. Each chord is named after its circled note.

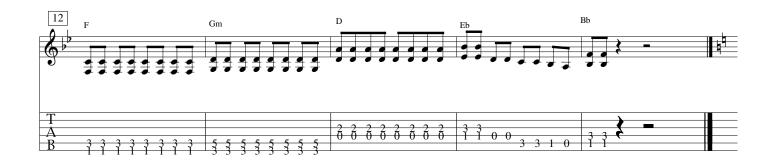


Quick-Changing Two Finger Chords



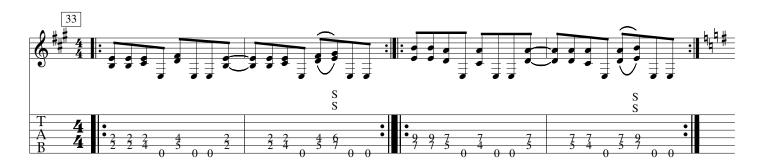


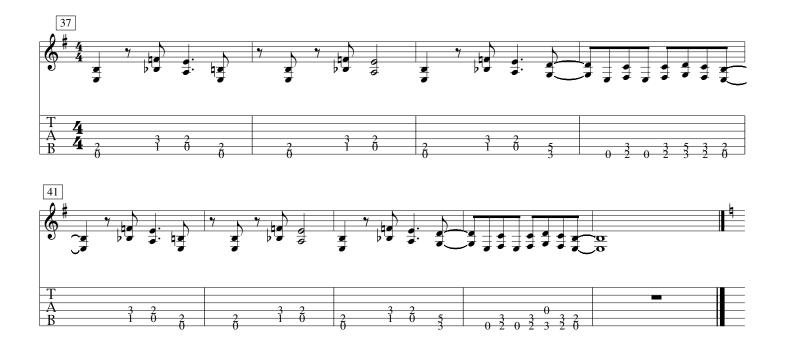






Quick-Changing Two Finger Chords (continued)

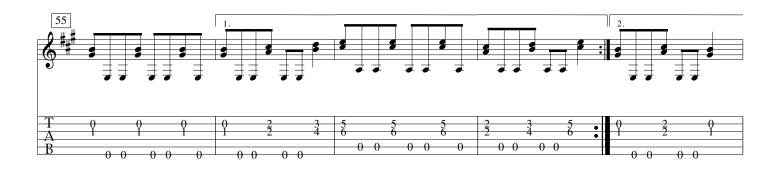






Quick-Changing Two Finger Chords (continued)

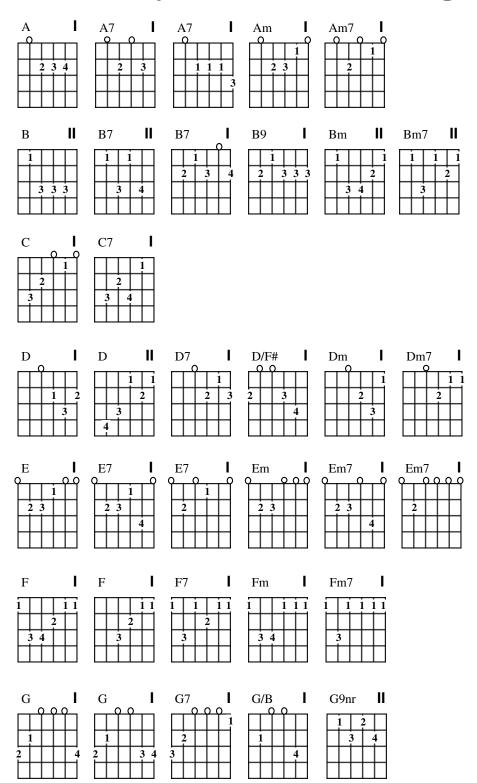






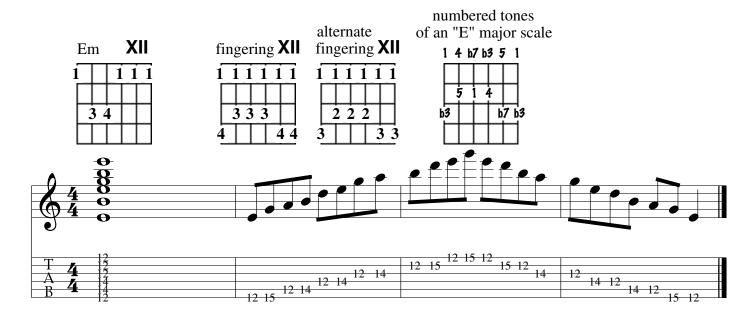


First Thirty-Five Chord Fingerings

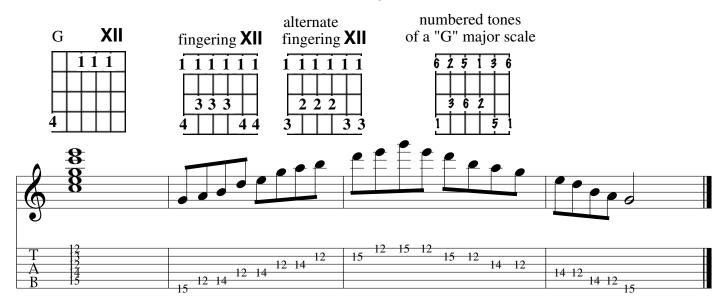


Compare the fingerings below to the open position E minor 7/11 and open position G maor 6/9 fingerings you learned earlier. They have the same pattern, but the open strings are replaced with "first finger notes" and the notes fretted with second and third fingers may be changed to third and fourth fingers.

Twelfth Position E Minor 7/11 Pentatonic Scale



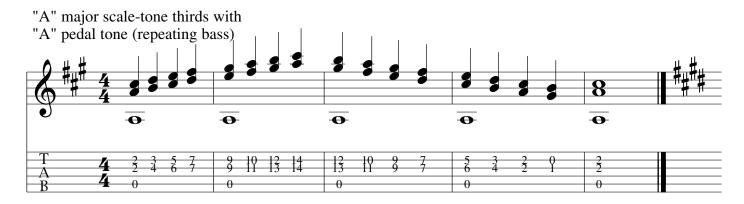
Twelfth Position G Major 6/9 Pentatonic Scale

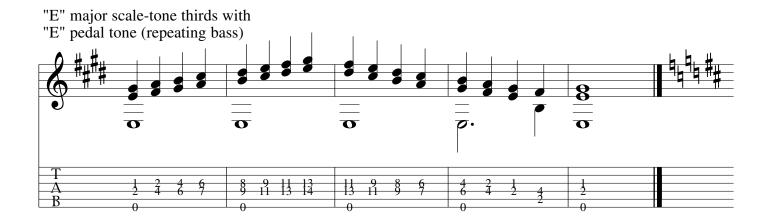


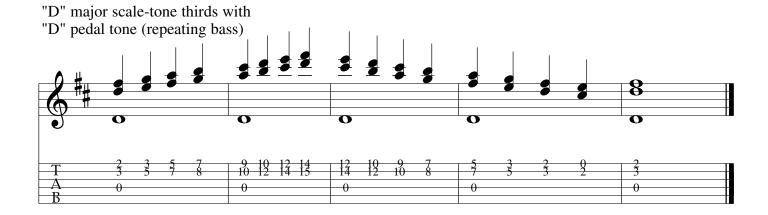
Major Scale-Tone Thirds

fin 1.716

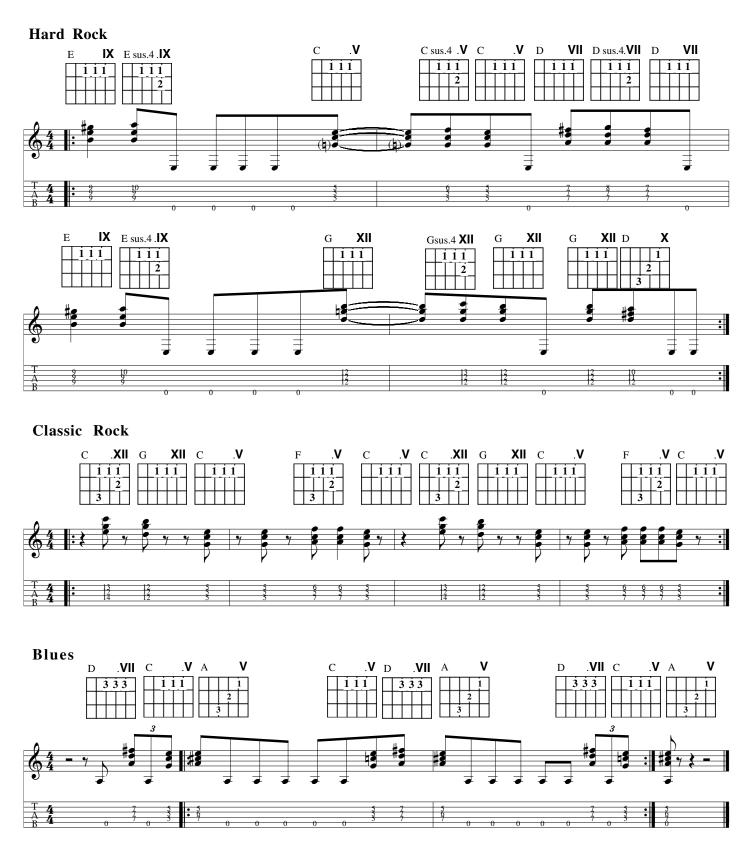
Pluck the open-string bass notes with the the thumb and the remaining notes with the index and middle fingers.





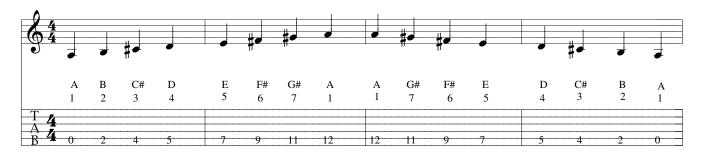


Three String Barré Examples

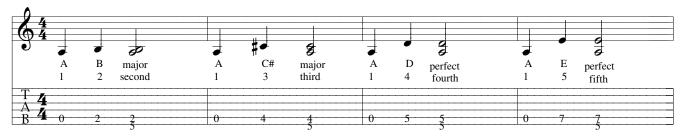


MAJOR AND PERFECT INTERVALS UP TO A FIFTH

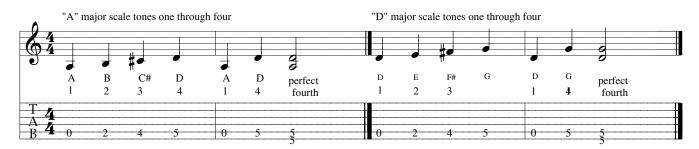
Play the "A" major scale on the fifth string, as shown below.



In each of the four bars of examples below, "A" is followed another of the major scale tones. Then "A" is played on the sixth string, fifth fret at the same time as the other scale tone. When two notes are played at the same time, they are called an *interval*.



Intervals are relative. A perfect fourth represents the interval from scale tone one to scale tone four *in any major scale*. In the example below, a perfect fourth is constructed from the "A" and "D" major scales. Likewise, any interval conceived in one major scale can be conceived in another.



During a piece of music you should get a sense of which chord the music is moving toward, the chord you would expect it to end on. The *key* is the name of the note you would expect as the bass note at the end of the musical example and is the note after which the last chord is named.

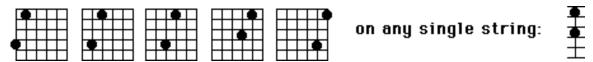
Transposing is the changing of a musical example from one key to another. In the interval diagrams below, intervals are shown on various different combinations of strings. In comparing interval fingerings graphically, they don't always look the same. Wherever a note on one of the the first two strings is combined with a note on strings three through six, the note on the first or second string must be moved up one fret to

compensate for the fact that the first two strings are tuned down a half step (one fret) compared to the other strings. Remember, for example that you can tune each string fretted at the fifth fret to the next smaller string open *except* the third string must be fretted at the fourth fret to tune it to the second string, open. This illustrates that the first two strings are tuned down one half step.

DIAGRAMS OF INTERVALS THAT REPRESENT THE FIRST FIVE TONES OF A MAJOR SCALE

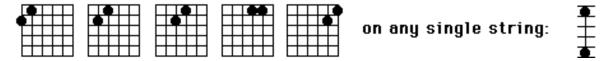
INTERVALS MEASURED IN FRETS DO NOT COUNT THE FRET ON WHICH YOU BEGIN

Major second (M2) = 1 step = 2 frets Equal to the interval from major scale tone one to major scale tone two in any key.

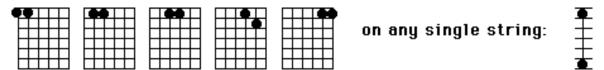


 $major\ third\ (M3) = 2\ steps = four\ frets$

Equal to the interval from major scale tone one to major scale tone three in any key.

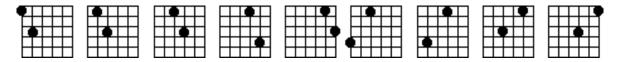


perfect fourth $(P4) = 2 \frac{1}{2}$ steps = five frets Equal to the interval from major scale tone one to major scale tone four in any key.



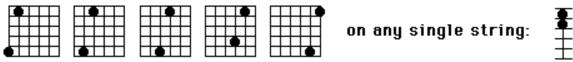
 $perfect \ fifth \ (P5) = 3 \ 1/2 \ steps$

Equal to the interval from major scale tone one to major scale tone five in any key.

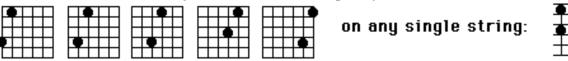


A minor second interval is an alteration of the major second, where the higher pitch is lowered by a half step (one fret).

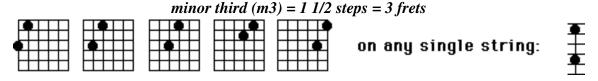
 $Minor\ second\ (m2)=1/2\ step$



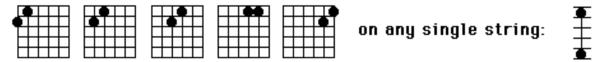
$$Major \ second \ (M2) = 1 \ step = 2 \ frets$$



A minor third interval is an alteration of the major third, where the higher pitch is lowered by a half step (one fret).

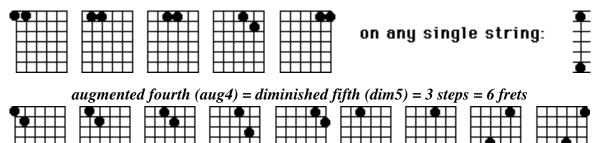


 $major\ third\ (M3) = 2\ steps = 4\ frets$ Equal to the interval from major scale tone one to major scale tone three in any key.

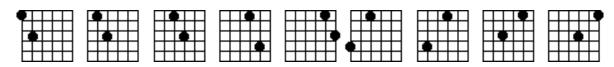


An augmented fourth interval is equal to a diminished fifth interval. The augmented fourth interval is an alteration of the perfect fourth, where the higher pitch is raised by a half step (one fret). The diminished fifth interval is an alteration of the perfect fifth, where the higher pitch is *lowered* by a half step (one fret).

> perfect fourth $(P4) = 2 \frac{1}{2}$ steps = five frets Equal to the interval from major scale tone one to major scale tone four in any key.



perfect fifth $(P5) = 3 \frac{1}{2}$ steps = 7 frets Equal to the interval from major scale tone one to major scale tone five in any key.



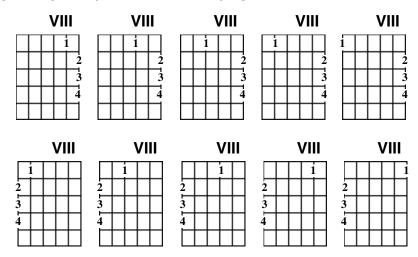
POSTURE EXERCISES FOR THE INDEX AND LITTLE FINGERS

These exercises train the the index and little fingers to stay separated from fingers next to them. By training your "outside" fingers (index and little fingers) to stay separated at the middle knuckle, the tips of the outside fingers can more easily reach to adjacent strings and frets.

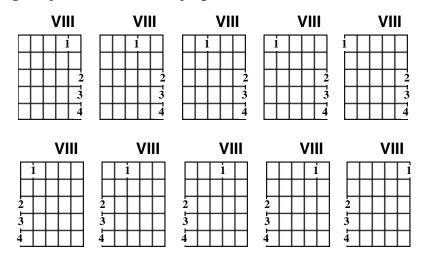
Reaching To The Two Adjacent Frets With The Index Finger

Play the sequence indicated by each row of diagrams below in order, reading from left to right. Keep the middle, ring and little fingers fretted, as shown. Play this sequence keeping the first finger very close to the strings. When your hand or fingers tire, rest and massage them.

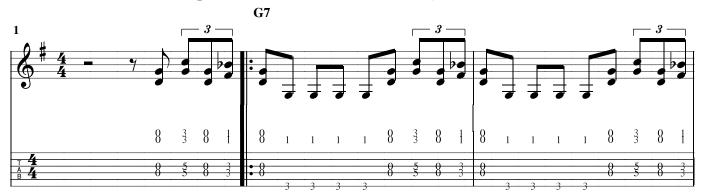
fretting the adjacent fret with the index finger

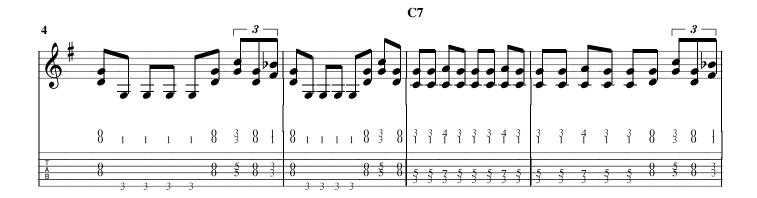


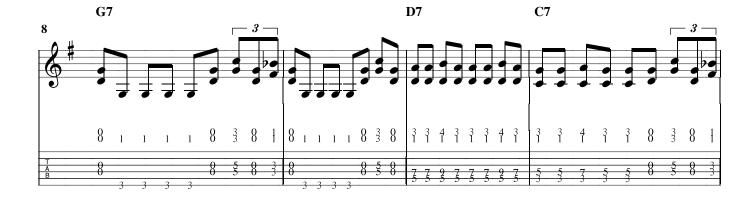
reaching two frets with the index finger

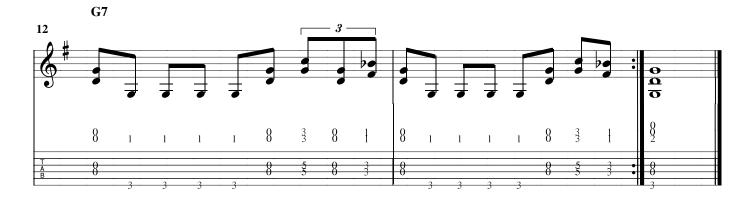


Parallel Fourths Blues Example 1. Repeat between the repeat signs and end on the last chord.









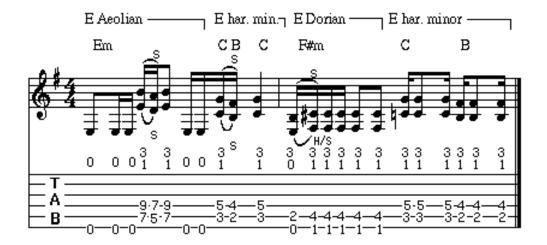
PARALLEL FIFTHS RHYTHM GUITAR EXAMPLES

Parallel Fifths Metal Example 1. Repeat and end on the last chord.



Parallel Fifths Metal Example 2. Repeat and end on the third chord.

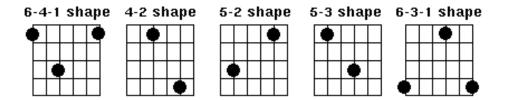
At the beginning of the second bar, the low "E" to "F#" is a combination hammer and slide.



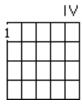
FUNDAMENTALS OF FINGERING

STRICT VERTICAL POSITION

Review the five octave shapes. "6-4-1" indicates that the notes are on the sixth, fourth and first strings. "4-2" indicates notes on the fourth and second strings.



"Position" is the numbered fret at which the first (index) finger is placed:

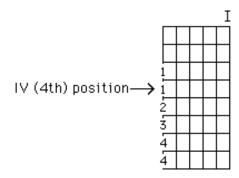


Strict vertical position is used for single note patterns such as scales and arpeggios, not for chords or intervals. It is a concept of fingering, used to define which position you are in during any part of a phrase. It should not be restrictive. The position is numbered after the fret at which the first finger is placed.

In strict vertical position, the fretting hand fingers are assigned to four consecutive frets, with two exceptions:

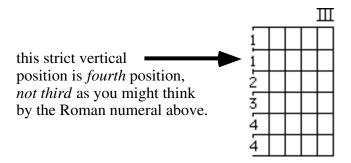
- 1. The first finger can reach out of position one fret toward the head of the guitar.
- 2. The fourth finger can reach out of position one fret toward the bridge.

The diagram below illustrates the two exceptions mentioned above. The arrow to the left of the diagram indicates the strict vertical position:



The Roman numeral on the upper right of a fretboard diagram does not necessarily indicate the strict vertical position. When the first finger reaches one fret out of position to the left, the diagram must include the

next fret below the strict vertical position:



Surveying The Fretboard

Learn to finger all scales, arpeggios (chords played one note at a time) and chords with at least one version in each octave area.

Find the fingerings that you will use most often. Regardless of how many fingerings you memorize, you'll be able to play certain ones faster and smoother. After studying principles of fingering, choose fingerings according to the (1) shape and flexibility of your hand, and (2) the contours of patterns on the fretboard characteristic of the styles you play.

PRINCIPLES OF FINGERING

General rules. When one rule conflicts with another, weigh the advantages and disadvantages of each.

Practice difficult fingerings such as:

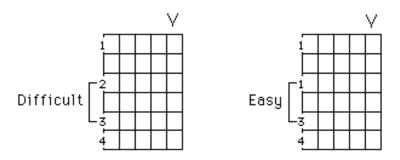
- reaching out of position with the fourth finger
- rapid use of the fourth finger
- bends with the first (index) or fourth finger
- spans leaving a fret between the second (middle) and third (ring) fingers
- consecutive use of the same finger on different strings
- wide skips in position

Avoid difficult fingerings when speed or clarity is needed. Use smooth, easy fingerings for speed and clarity. This often involves avoiding use of the little finger.

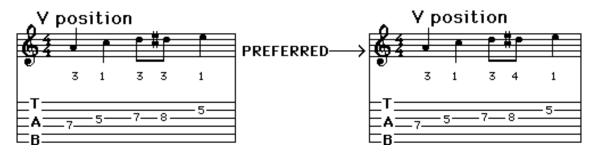
In playing the example below, most guitarists would find it easier to avoid the use of the little finger, since playing the upper positions tends to involve a rotation of the palm where the index finger reaches closer to the bridge and the little finger is pulled down. This is especially true in playing upper positions on acoustic guitars where the hand has to reach over the guitar body at the twelfth or fourteenth fret when the guitar has no cutaway.



Avoid using the second and third fingers spanned apart to leave an empty fret between them Exception: Allan Holdsworth's style incorporates this commonly avoided span.



Avoid using the same finger for two different notes on the same string, unless to slide, change position, or reach out of position.

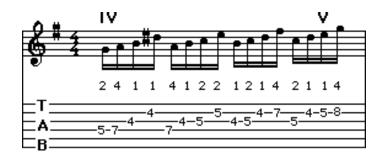


Avoid using the same finger on different frets of two adjacent strings:

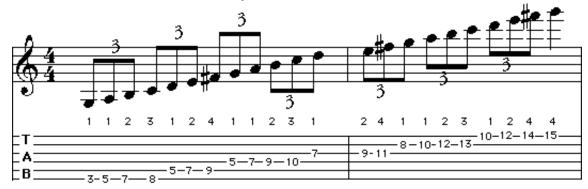


Changing Position.

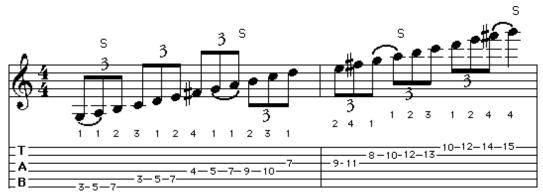
Avoid changing position until you have to when improvising diagonally across the fretboard. Continue using a convenient fingering area until it presents a difficulty. This simplifies your position changes.



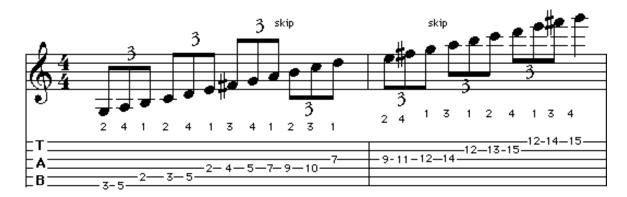
Shifting: changing position by playing two consecutive notes on the same string with the same finger. This is usually done with the first or fourth fingers. The following example is an exercise and would usually be too long of a scale run to be used in its entirety within a solo.



Sliding. Changing position by sliding from one note to another is usually done with the first or fourth fingers.



Skipping from one position to another wastes time in movement, but can save time by using familiar fingering patterns which require little thought.

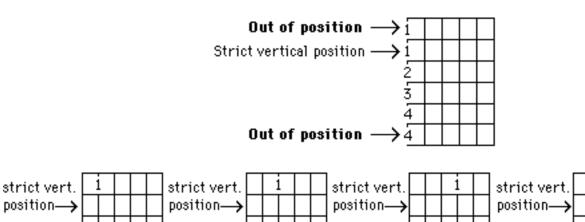


Compressing: changing position where notes are played in a lesser span than the fingers usually occupy, such as two consecutive frets fingered by the first and third fingers. In the example below, the first and fourth fingers span three frets instead of four frets (the second and third to last notes in the example).



Out-Of-Position Notes.

Reach out of position with the outside fingers. Out-of-position notes can usually be reached to the left with the first finger or to the right with the little finger:



Use the following guidelines for fingering out-of-position notes:

(1) First finger out-of-position reaches are better than those with the fourth, because of the wider span between the first and second fingers.

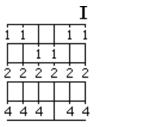


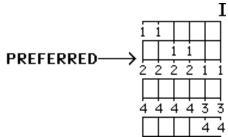


(2) When playing intervals involving five fret spans on two or more strings, choose a fingering option with a whole step between the first and second finger. Otherwise, the whole step will probably occur between the third and fourth fingers

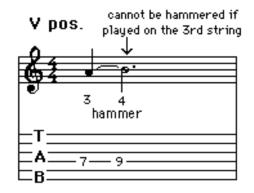


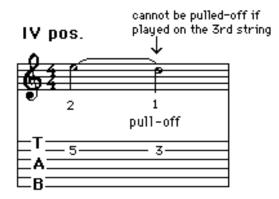
(3) Identical fingering patterns on adjacent strings are desirable for ease of memorization and to conserve motion in the left wrist.





(4) Hammers and pull-offs sometimes determine which out of position version of a note will be used.

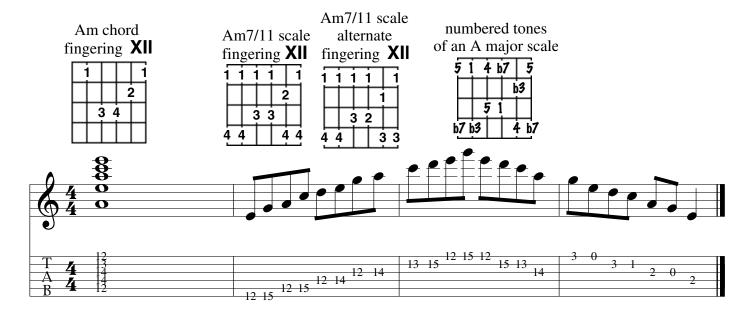




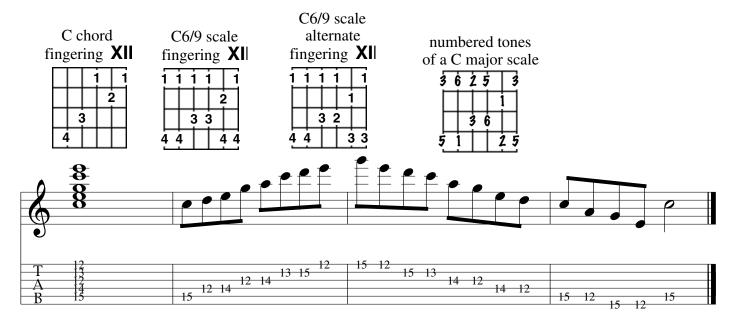
fin 1.890 fin 1.890 A Major Scale and A Major Arpeggio Exercise A major scale A major scale A major arp. A major arp. formula **IX** fingers IX fingers IX formula **IX** arpeggios fingered as subsets 362573 111111 4 4 4 4 4 5 1 4 2 5

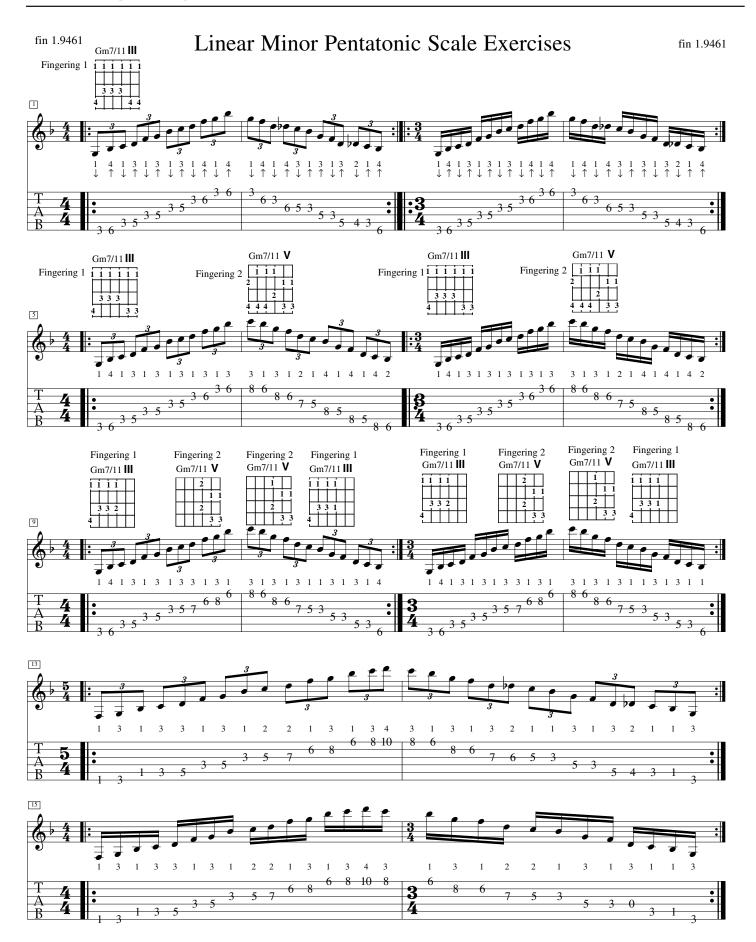
Compare the fingerings below to the open position A minor 7/11 and open position C maor 6/9 fingerings you learned earlier. They have the same pattern, but the open strings are replaced with "first finger notes" and the notes fretted with second and third fingers may be changed to third and fourth fingers.

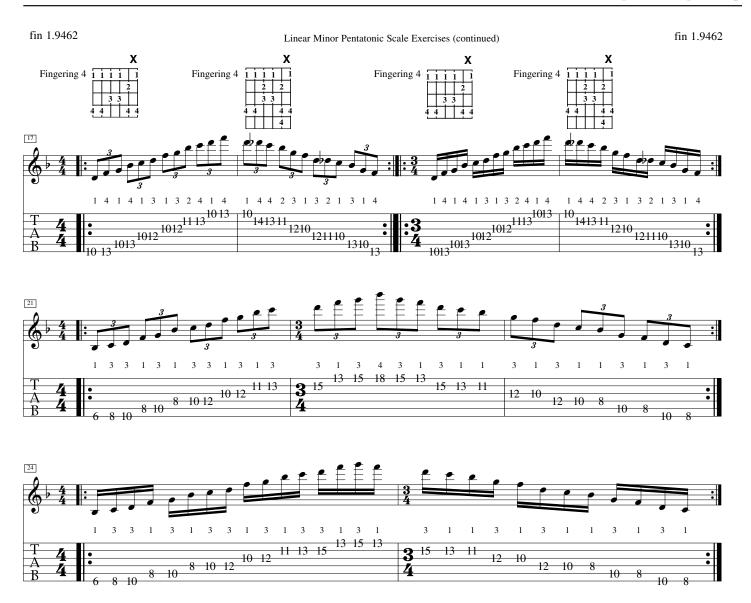
Twelfth Position A Minor 7/11 Pentatonic Scale



Twelfth Position C Major 6/9 Pentatonic Scale



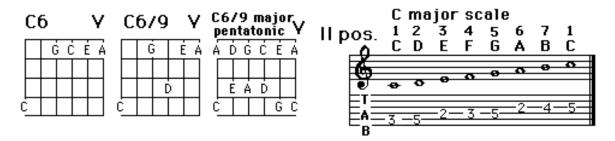




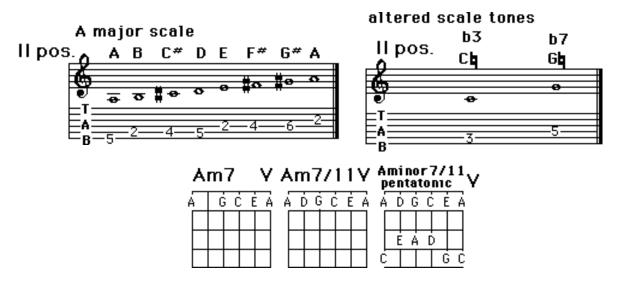
AN OVERVIEW OF PENTATONIC SCALES

Pentatonic scales have five tones per octave (not counting the octave). The most common forms are the minor 7/11 pentatonic and major 6/9 pentatonic. I name these scales after the chords which have the same notes.

The major 6/9 chord is a sixth chord with an added ninth. The major scale tones used in a 6/9 chord are 1, 2, 3, 5, 6. That is, a 6/9 chord is made up of the first, second, third, fifth and sixth tones of a scale named after the chord root. As you can see below, those tones of a C major scale are C, D, E, G and A.



The minor 7/11 chord is a minor seventh chord with an added eleventh. A minor 7/11 chord uses major scale tones 1, b3 (a flatted version of major scale tone 3), 4, 5, b7 (a flatted version of major scale tone 7). So, a minor 7/11 chord is made up of the first, flatted third, fourth, fifth and flatted seventh tones of a scale named after the chord root. Those tones (or altered tones) of an A major scale are A, C, D, E and G. Notice that the flatted third and flatted seventh each lower the original scale tone by one fret (moving to the player's left).



The scales shown above are the most common pentatonic scales. Minor 7/11 pentatonic is the most fundamental and common scale in blues music. Major 6/9 is common to American styles of Anglo-Saxon origin, such as bluegrass, ragtime and country music.

Both minor 7/11 and major 6/9 pentatonic scales can be enhanced with the use of chromatics, as is shown in the fingerings at the end of this chapter.

Major 6/9 pentatonic works melodically against most major type chords, but is usually most effective when used against major, sixth or add nine chords (major, 6th, add 9, 6/9). Minor 7/11 pentatonic works against most minor type chords, but is most effective against minor seventh types (m7, m9, m11, m7/11).

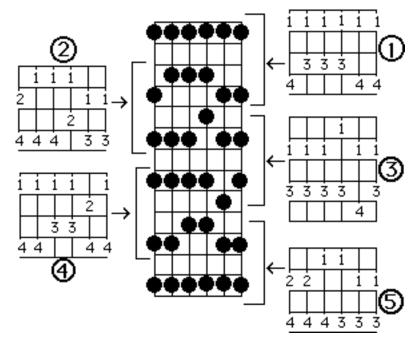
MOVABLE PENTATONIC SCALE FINGERINGS

Minor 7/11 and major 6/9 pentatonic scale fingerings are both taken from the same pattern. Each of the two scales has its own pattern of tone centers within the pattern. Before illustrating the respective tone centers for each scale, let's look at the pattern which is common to both.

The pattern is movable. It can be placed anywhere on the fretboard and would be named according to the present location of the tone centers, which will be shown later.

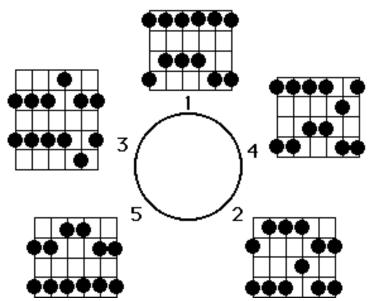
The thirteen fret diagram at the right displays the complete twelve fret pentatonic scale pattern. The top fret on the diagram has a note on every string, as does the thirteenth fret. If the diagrams were to continue downward, it would repeat the entire pattern, beginning at the 13th fret on the bottom.

The smaller diagrams illustrate the twelve fret pattern broken into five smaller, single position fingering patterns. Fingering "1" is the most common, and the others are numbered in order up the fretboard from it.

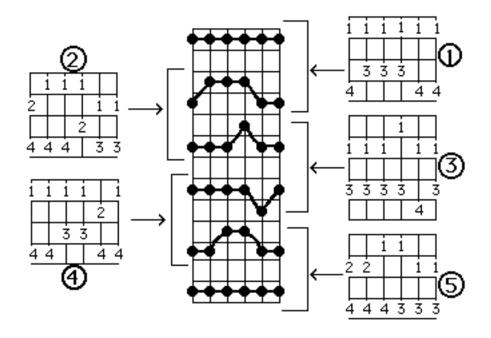


GRAPHIC VIEW OF PENTATONIC SCALES

The Pentatonic Fingering Cycle. Notice that as you circle to the next fingering in this cycle in either direction, only two or three notes in the pattern change and that the notes that change are in one of the five octave shapes (see Chapter 2).



Pentatonic "Lines". Connecting the notes across the fretboard, "lines" are created. Each pentatonic scale fingering is made up of two consecutive lines.



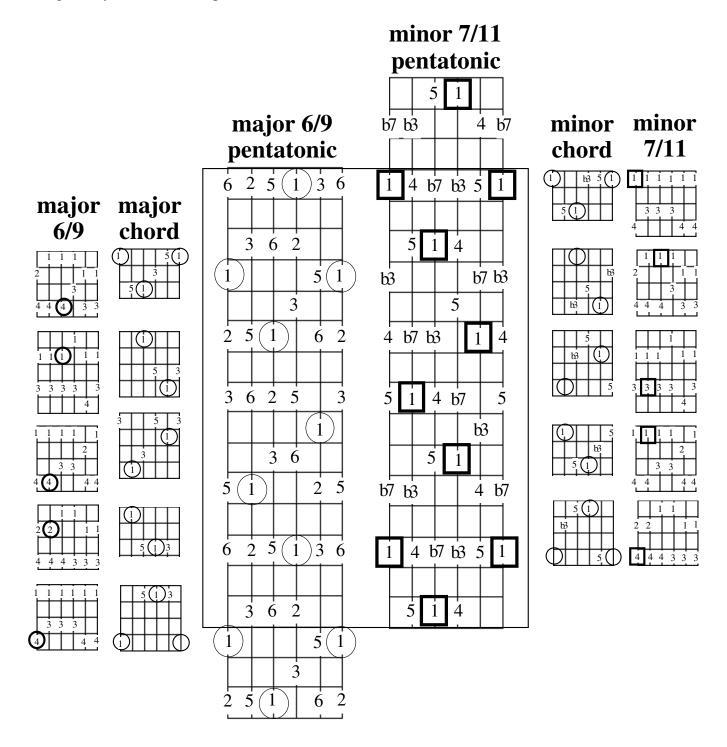
VARIATIONS ON FINGERINGS

The top row is easiest to fret without bending. The middle row is best suited for bending notes on strings 1, 2 and 3 and fretting notes on the lower strings. The bottom row of fingerings work best in the higher positions or for bending notes on all six strings.

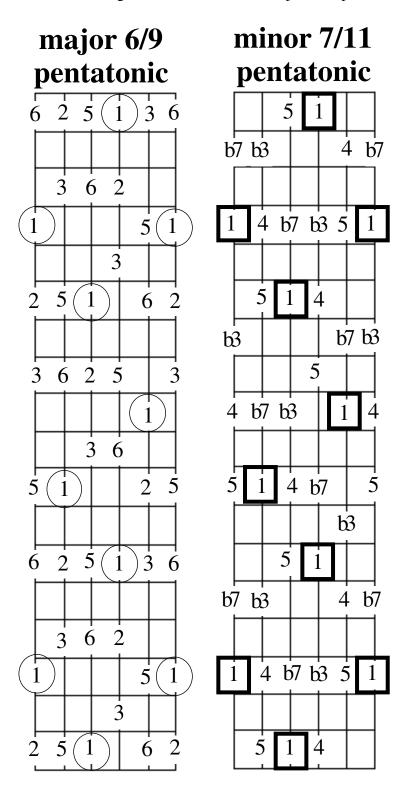
easiest to fret without bending	fingering 1 1 1 1 1 1 3 3 3 3 4 4 4	fingering 2 1 1 1 1 2 2 2 4 4 4 4 4 4	fingering 3 2 2 2 1 1 4 4 4 3 3 4 4 4 3 4	fingering 4 1 1 1 1 1 2 2 4 4 4 4 4	fingering 5 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
employing bends	3 3 2 4 3 3 3	2 1 1 1 2 4 4 3 3 3	1 1 1 1 1 1 1 3 3 3 3 3 3 3 4	1 1 1 1 1 1 1 3 2 1 4 4 1 3 3	2 2 1 1 1 4 4 4 3 3 3
higher positions	2 2 2 3 3 3	1 1 1 1 1 1 1 1 2 1 3 3 3 3 3 3	1 1 1 1 1 1 1 3 3 3 3 3 3 3 4 4	1 1 1 1 1 1 1 2 2 1 3 3 3 3 3 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

RELATIVE MAJOR 6/9 AND MINOR 7/11 PENTATONIC SCALES

Compare the major 6/9 and minor 7/11 pentatonic scale fingerings below. As illustrated by the bold rectangle, they share the same pattern.

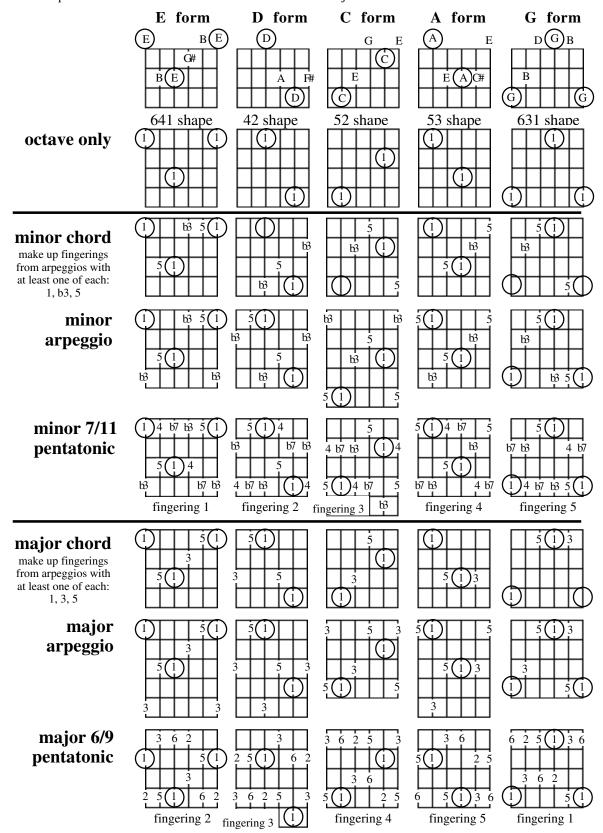


To align the tone centers and play in the same key, the major 6/9 pentatonic pattern would have to be played three frets toward the head of the guitar in relation to the major 7/11 pattern.

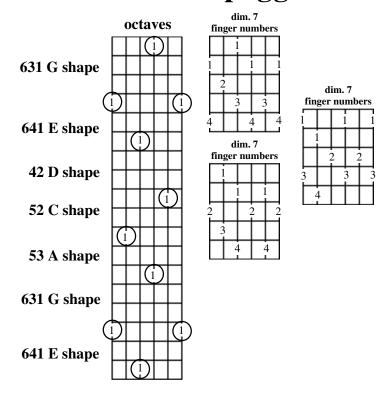


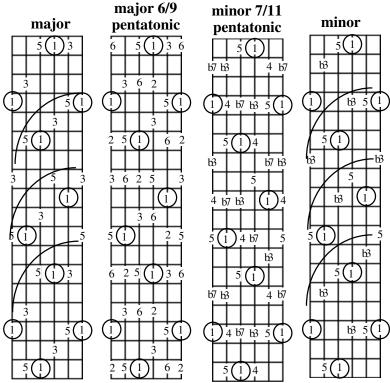
Common Scales, Chords and Formulas

Formulas express a scale or chord with the numbered tones of a major scale or the chord's root or a scale's tone center.



full fretboard arpeggios and scales

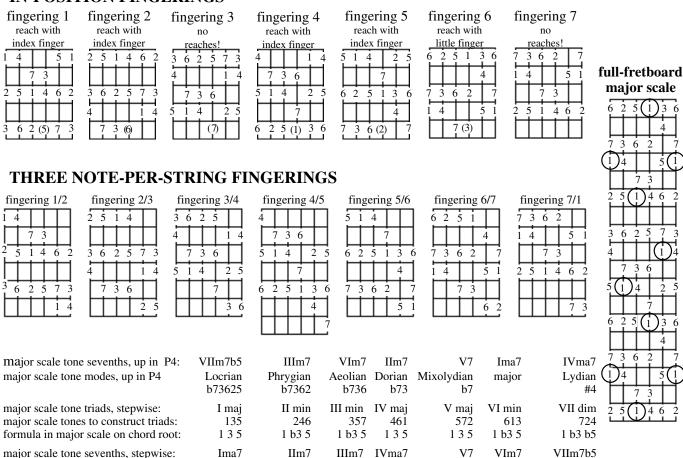




MAJOR SCALE

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IN-POSITION FINGERINGS

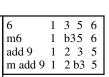


CHOBL	FORMULAS
major	
minor	
	1 b3b5 1.1 b3b5
sus. 4	
sus. 2	
	t.1 3 #5
maj 7 (Δ7	1) 1 3 5 7
7 (dom 7)	1 3 5 b7
m7	1 b3 5 b7
m7b5	1 b3 b5 b7
dim 7	1 b3 b5 6
ma 9 (д9)	1 3 5 7 9 (=2)
9	1 3 5 b7 9 (=2)
m9	1 b35 b7 9 (=2)

major scale tones to construct sevenths:

formula in major scale on chord root:

major scale tone modes, stepwise



1357

1357

major

2461

Dorian

1 b3 5 b7

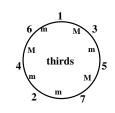
3572

b2b3b6b7

1 b3 5 b7 1 3 5 7

Phrygian Lydian

4613



7 AND 8 TONE SCALE formulas							
IV Lydian	1	2	3	#4	5	6	7
I major	1	2	3	4	5	6	7
V Mixolydian	1	2	3	4	5	6	b7
II Dorian	1	2	b3	4	5	6	b7
VI Aeolian	1	2	b3	4	5	b6	b7
III Phrygian	1	b2	b3	4	5	b6	b7
VII Locrian		b2	b3	4	b5	b6	b7
harmonic minor	1	2	b3	4	5	b6	7
Phrygian Major	1	b2	3	4	5	b6	b7
melodic minor	1	2	b3	4	5	6	7
Lydian b7 (mel min IV=13#11)	1	2	3	#4	5	6	b7
Locrian b4 (mel.minVII -7b5#5b9#9)		b2	b3	b4	b5	b6	b7
dimin. half/whole (13#11b9#9)	1	b2 #	ŧ2 3	#4	5	6	b7

5724

Mixolydian

1 3 5 b7 1 b3 5 b7

6135

Aeolian

b3b6b7

7246

1 b3 b5 b7

b2b3b5b6b7

Locrian

PENTATONIC SCALE formulas					
7/11	1		3 4	5	b7
m7/11	1		b3 4	5	b7
m7/11b5	1		b3 4	b5	b7
m6/11	1		b3 4	5	6
m6/11b6	1		b3 4		
6/9	1	2	3	5	6
m6/9	1	2	b3	5	6

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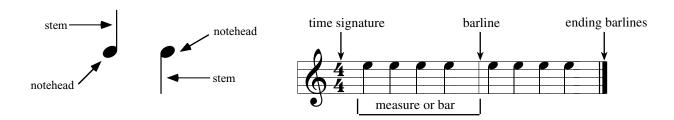
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AN INTRODUCTION TO READING RHYTHM

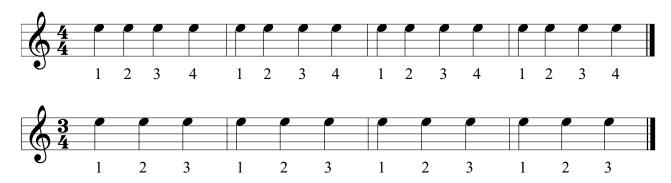
BEATS AND METER

The *beat* is the regular pulse to which music is played. *Meter* is the measurement and grouping of beats. The most common meter is four. Meter in four is counted "one, two, three, four, one, two, three, four, etc.", thought or spoken at regular intervals in time. Meter in three is counted regularly "one, two, three, one, one, two, three, etc.". In music notation, these groups are divided into *measures* or *bars* (the meanings are virtually identical) by *bar lines*.

In *standard music notation*, there are two numbers near the beginning of a piece of music, one written over the other. This pair of numbers is called the *time signature*. The top number defines the grouping of beats. When the top number is "four", there are four beats to a bar. When it is three, there are three beats to a bar, when it is seven, there are seven beats to a bar. I'll define the bottom number later. For now, I'll give all musical examples with a four as the bottom number. Each note in music notation is represented by an oval notehead. Most notes also have a stem, which may be drawn up or down from the notehead.

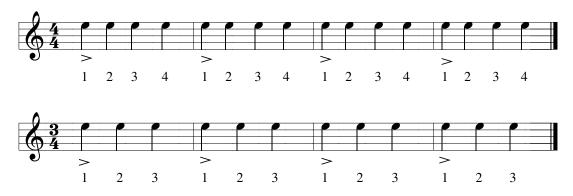


In the exercises below, each note has a time value of one beat. Notice that in the 4/4 time signature, there are four beats per bar, and three beats per bar in the 3/4 time signature. In 4/4, count "1, 2, 3, 4" evenly as you play. In 3/4, count "1, 2, 3" evenly as you play.



Metric Accent

Beginning Accents. Most music is performed in regular groups of beats called bars or measures (above). While performing these regular groups, we tend to emphasize the beginning of each group, beat "1". This is an implied emphasis and is not a heavy accent, but a light, subtle one. The ">" symbol below indicates the implied metric accent.



Half-Way Accents. When measures have even numbers of beats, the beat which begins the last half of the measure is given a slight accent, one lesser than that on the first beat. The "≥" symbol below indicates the strongest implied metric accent, and the ">" symbol indicates the next weaker accent.

In four-beat measures, the next to the strongest metric accent is on "3", since it begins the last half of the measure:



In six-beat measures, the next to the strongest metric accent is typically on "4", since it begins the last half of the measure:



Last Beat Accents. The last beat in the measure is often lightly accented to "lead-in" to the first beat of the next measure.

In three-beat measures, the "last beat" accent on "3" would mean a lesser accent on "2".



In four-beat measures, the "last beat" accent on "4" would mean a lesser accent on "2".



In six-beat measures, the "last beat" accent on "6" would mean a lesser accents on "2", "3", and "5".



Темро

The rate at which beats are played is called *tempo*. The tempo is commonly measured in *beats per minute*. A typical dance tempo is 120 *beats per minute* (BPM). To pratice estimating 120 BPM, watch a clock and count twice per second. Tempo is indicated in music notation by showing the type of note that represents one beat, followed by a number representing beats per minute. This is traditionally shown at the beginning of a piece of music, and wherever there is a change in tempo.



SUBDIVISION OF THE BEAT

rhy 1.080

Beats can be subdivided. When there are two notes per beat, the rhythm is called *duple time*. Three notes per beat is called *triple time*. Four notes per beat are usually classifed as duple time, since they are pairs of two notes per beat.

A drummer typically plays all or most of the subdivisions of a beat on their ride or high hat cymbals. The "ride" cymbal is the large, softer sounding one. The louder crash cymbal is played on accents. The high hat cymbals are a pair of cymbals mounted on a shaft, with the bottom one upside-down. In addition to being played with the drumsticks, the high hat cymbals are opened and closed (moved apart and together on the shaft) with a foot pedal, making a "shoop" sound. If you listen to the ride or high hat cymbals, you'll usually hear something like a metronome (a beat-emitting device, used to practice rhythm).

In triple time, the drummer may play "one, two, three, one, two, three" on their cymbals. Or, they may think "one, two, three, one, two, three", and only play the "one, three, one, three" part of it (with a space in time to represent "two"). "One, three" is called a *shuffle* or *swing*.

In duple time, the drummer may play "one, two, one, two" on their cymbals. Or, they may think "one, two, one, two", and only play the "one, one, two, one, one, two" parts (with a space in time to represent the missing "two"). I call this rhythm the *gallop*, where every second of four regular parts is not played.



ENDINGS AND REPEATS

Repeat signs

Repeating the previous beat(s). This slash / indicates that:

- (1) The previous beat should be repeated once for each slash; or
- (2) The chord indicated above the staff should be played one beat for each slash.



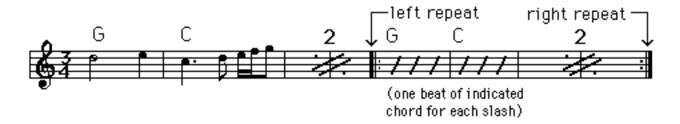
Repeating the previous measure(s). When this slash with dots is shown in a measure, the previous measure is repeated. The measure may be repeated several times by repeating the slash and dots to indicate the desired number of repetitions. See the example below.



Two bar repeats. Two measures (or bars) may be repeated as a group by writing the slash and dots (above) over the bar line and writing the number "2" over the bar line.



Left and right repeat signs. The repeat signs shown in the example below are used to indicate repetition of everything between them. In the example below, bars four through eight would be repeated.



Right repeat sign inly. When a right repeat sign is shown *without a matching left repeat sign*, repeat from the beginning.



Ending bar lines. At the end of the last bar (or measure) in a song, there is a double bar line and the second bar line is especially thick.



First And Second Endings

First ending. The bracket shown over the last two bars of the example below indicates that the bars within the bracket should be played only the first time through. Then you should go back to the beginning of the section to be repeated, indicated with double bar lines and dots on their right. If no double bar lines exist with dots on their right, repeat from the beginning of the song.



Second, third, etc. endings. Like the first ending, additional ending sections (under their numbered brackets) should be played only once. If an ending section is completed with a repeat sign (a double barline with dots on its left), you should go back to the beginning of the section to be repeated. The beginning of the repeated section is indicated with double bar lines and dots on their right. If no double bar lines exist with dots on their right, repeat back to the beginning of the song. The last numbered ending (under a bracket) will not be repeated.

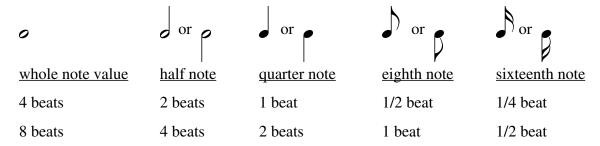


INTRODUCTION TO TIME SIGNATURES AND HALVING VALUES

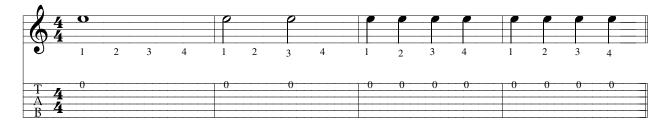
Most of the time values used in music notation fall into one of the following three categories:

- halving: halved and re-halved values in relation to the whole note
- dotted notes, which multiply values by one and one half (explained in a later section)
- tuplets, which change the subdivision of the beat

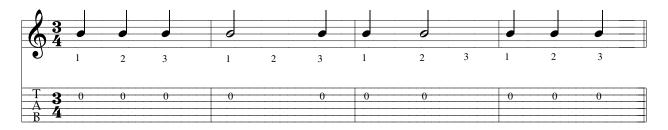
When the bottom number in the time signature is "4", the whole note has a value of four beats. The half note is half the value of the whole note: two beats. The quarter note is one quarter the value of the whole note: one beat. Though they aren't used in the examples below, eighth notes would have one eighth the value of the whole note and sixteenth notes would have one sixteenth the value of the whole note. The whole note is only assigned values that are the positive powers of two (2, 4, 8, 16, 32).



When the top number on the time signature is "4", there are four beats per measure. The example below uses the first string open, "E".



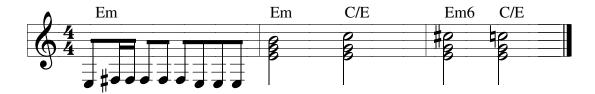
When the top number on the time signature is "3", there are three beats per measure. The example below uses the second string open, "B".



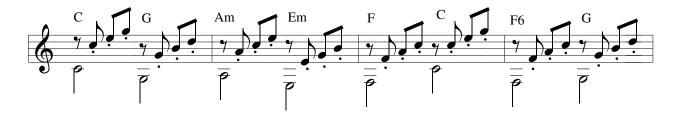
Upward or downward stems indicate the same rhythmic value. They generally are drawn downward from noteheads above the middle line of the staff and upward from noteheads below the middle line of the staff. Notes on the middle line are drawn either up or down.



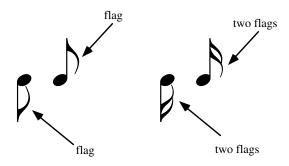
Exceptions are made when drawing the stem opposite the protocol will avoid collision with other music characters.



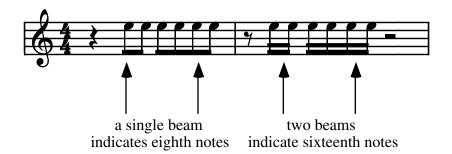
When two instrument parts are written on the same staff, one part is usually written with all stems up and the other with all stems down.



The ornate curved line attached to the stem of eighth, sixteenth or notes of lesser time is called a *flag*. A single flag modifies a quarter note to make it an eighth note, two flags make a sixteenth note, three flags make a thirty-second note, and so on. Flags are never used on open-headed notes (whole nor half notes).



A *beam* is a thick line connecting the end of the stem (opposite the notehead). Beams have the same effect as flags. A single beam modifies a quarter note to make it an eighth note, two beams make a sixteenth note, and so on. Like flags, beams are never used on open-headed notes.



Beams usually group notes by the beat. In shorter time values, beams can be connected to a group notes which total half a beat where the nature of the rhythm dictates that the beats are divided in half; or one third of a beat, where the nature of the rhythm is three subdivisions to the beat.



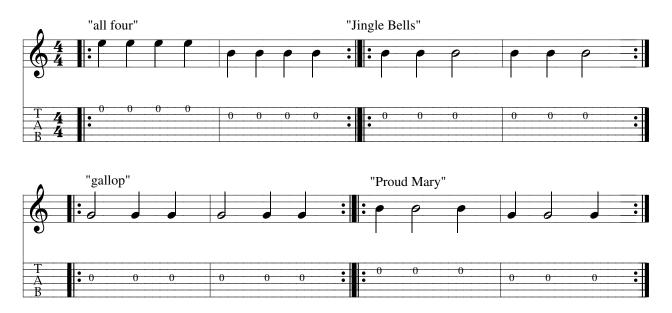
Stems on beamed groups of notes are drawn according to the average location of the noteheads. If the average notehead in a beamed group is above the center line, the stems are drawn downward. If the average notehead in a beamed group is below the center line, the stems are drawn upward.



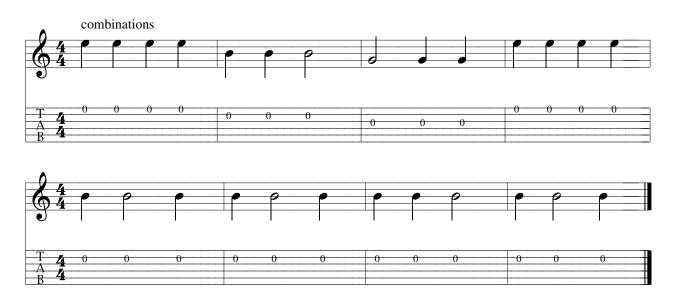
INTRODUCTION TO RHYTHMIC WORDS

Like words in a spoken language, *rhythmic words* are groups of characters which have meaning as a unit. When we see the word "apple" we don't think of the letters "a-p-p-l-e", but rather of a kind of fruit or computer. A musician reads of notes in groups, which have become familiar.

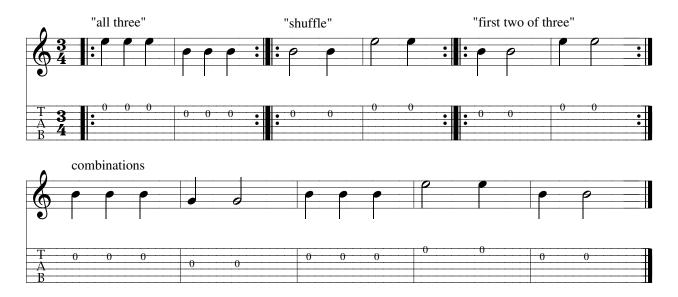
Four pulse rhythmic words are groups of notes which represent a choice from four pulses. The four pulses are of equal length in time. One choice would be to play all four of the pulses. Another choice would be to play on the first, third and fourth of the four pulses, which, as you will hear, sounds like the gallop of a horse. The Jingle Bells four-pulse rhythmic word is a choice of the first three of four parts and is the thematic rhythm of the familiar Christmas song. Proud Mary chooses first, second and fourth of the four pulses, and is the primary rhythmic idea in the Creedence Clearwater rhythm guitar part.



Here are some exercises with combinations of four pulse rhythmic words:



Three pulse rhythmic words are groups of notes which represent a choice from three equal pulses. Common choices are *all three*, first and third (called *shuffle* or *swing*), and *first and second*. Combinations are shown afterward for further practice.

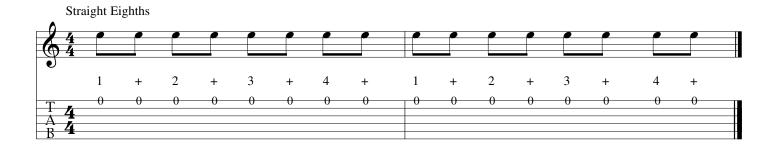


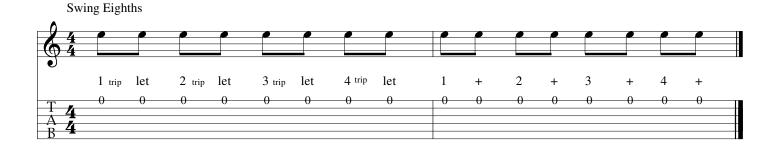
INTRODUCTION TO SWING EIGHTHS

Eighth notes are played at a rate of two-per-beat. Straight eighth notes are played literally one have beat each. Swing eighth notes are played two per beat, but unevenly.

The first note on a beat with swing eighths gets two thirds of a beat. The second note gets one third of a beat. If you were to count "1, 2, 3" on each beat, to illustrate three parts per beat, the two swung eighth notes would occur on "1" and on "3".

Both straight and swing eighths can be counted with "1, and, 2, and, etc.". In swing eighths, the numbered part of the beat ("1, 2, 3, 4, etc.") would get first two thirds of the beat and the "and" (+) would get the last third. The syllables "1, and 2, and, 3, and, 4, and" must be spoken with such a rhythm to express the time relationship





INTRODUCTION TO DOTTED NOTES

A *dotted note* receives one and one half times its normal value. Dotting multiplies time value of a note by a factor of one and one half. Dotting a note adds half again the value, *not* necessarily adding a half beat. Dotting a one beat note changes its value to one and one half beats, but dotting a two beat note changes its value to three beats. If a note without a dot receives four beats, dotting it would change the value to six beats.

DOTTED NOTE VALUES FOR TIME SIGNATURES WITH "4" ON THE BOTTOM

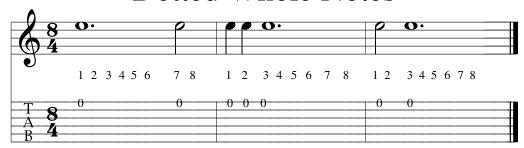
0	= 4 beats				
o٠	= three half notes:	٢	P	ſ	= 6 beats
P	= 2 beats				
ρ.	= three quarter notes:	•	ſ	ſ	= 3 beats
•	= 1 beat				
•	= three eighth notes:	Þ	p	p	= 1 and 1/2 beats
ß	= 1/2 beat				
5 .	= three eighth notes:		B	B	= 3/4 beat
		e three half notes: = 2 beats = three quarter notes: = 1 beat = three eighth notes: = 1/2 beat	e three half notes: = 2 beats = three quarter notes: = 1 beat = three eighth notes: = 1/2 beat	e three half notes: = 2 beats = three quarter notes: = 1 beat = three eighth notes: = 1/2 beat	e three half notes: = 2 beats = three quarter notes: = 1 beat = three eighth notes: = 1/2 beat

DOTTED NOTE VALUES FOR TIME SIGNATURES WITH "8" ON THE BOTTOM

one whole note	o	= 8 beats				
one dotted whole note	ο.	= three half notes:	r	٢	ſ	= 12 beats
one half note	P	= 4 beats				
one dotted half note	٥٠	= three quarter notes:	•	ſ	ſ	= 6 beats
one quarter note	•	= 2 beat				
one dotted quarter note	•	= three eighth notes:	p	p	p	= 3 beats
one eighth note	5	= 1 beat				
one dotted eighth note	, ,	= three eighth notes:	B	B	B	= 1 and $1/2$ beats

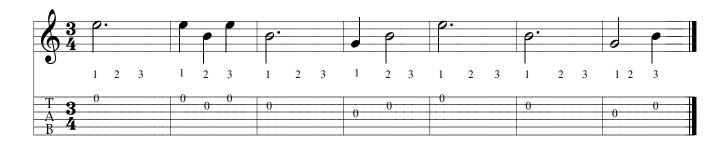
In the *Dotted Whole Notes Exercise* below, a dotted whole note receives six beats. The notes continue to be open strings, so you'll learn where they are written. Count "1, 2, 3, 4, 5, 6, 7, 8" as you play, assigning one beat to a quarter note ($^{\circ}$), two beats to a half note ($^{\circ}$) and six beats to a dotted whole note ($^{\circ}$).

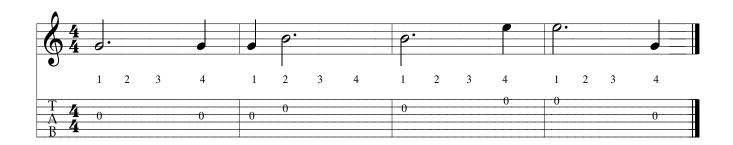
Dotted Whole Notes



In the *Dotted Half Notes Exercise* below, a dotted half note receives six beats. Count "1, 2, 3" as you play in 3/4 time and count "1, 2, 3, 4" as you play in 4/4 time. Assigning one beat to a quarter note ($\lceil \cdot \rceil$), two beats to a half note ($\lceil \cdot \rceil$) and three beats to a dotted half note ($\lceil \cdot \rceil$).

Dotted Half Notes





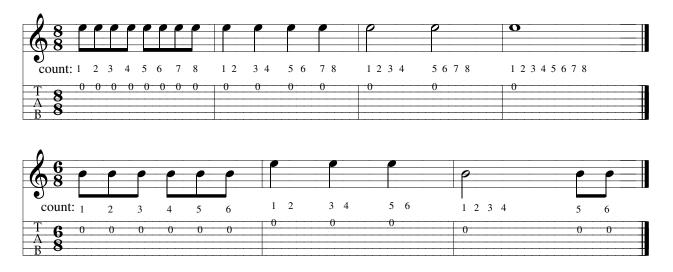
TIME SIGNATURES

Time signatrues are shown at the beginning of a piece of music to indicate the number of beats per measure and the value of the whole note. The top number indicates the number of beats per measure.

The bottom number indicates the value of the whole note in beats. If the bottom number is "4" the whole note has a value of four beats, the half note is two beats, the quarter note one beat, and so on.



If the bottom number is "8" the whole note has a value of eight beats, the half note is four beats, the quarter note two beats, the eighth note one beat, and so on.



Alternately, the bottom number in the time signature could be thought of as indicating the kind of note that receives one beat. If the bottom number is "4", the quarter note gets one beat. "8" would indicate an eighth note getting one beat. Thinking in this manner, "3/4" indicates three quarter notes per measure, or anything equivalent. 4/4 means four quarter notes per measure or an equivalent. 6/8 indicates six eighth notes or any equivalent.

Seemingly equivalent time signatures such as 2/2 and 4/4 or 6/8 and 3/4 may be able to contain the same notes in a measure, but are counted differently. Four quarter notes in 2/2 would be counted "1, and, 2, and". Since they represent half beats, only the first and third quarter note would be numbered. Four quarter notes in 4/4 would be counted "1,2,3,4", since they represent whole beats.



Four quarter notes may occur in 2/2 or in 4/4 time, but have more "drive" in 4/4, since each one has an implied metric accent. In 2/2, the second and fourth quarter notes are less accented and contribute to a more relaxed feeling.



SUMMARY OF WHOLE BEAT NOTE VALUES WITH THE ADDITION OF RESTS

A rest is a silence. It is just as important as a note. Miles Davis proved it. Begin and end a rest as acurately in time as you would a note.

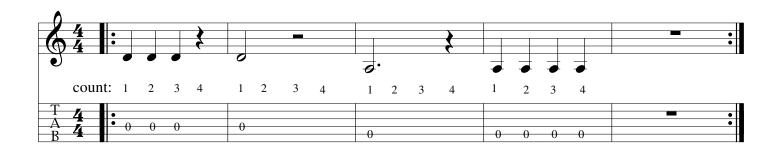
Notice that the whole rest is placed in the extreme *upper* portion of the second space from the top of the staff, and the half rest is place in the extreme *lower* portion of the same space.

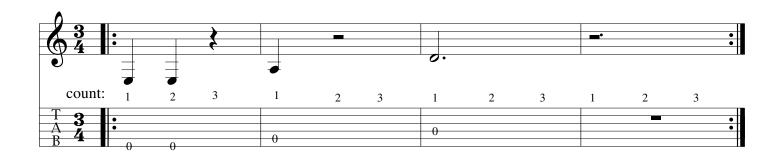
	TIME SI	GNATURES WITH "4'	ON THE	воттом	3 4
dotted whole note	ο·	or dotted whole note rest	0	= 6 beats	
whole note	o	or whole note rest		= 4 beats	
dotted half note	<i>\rho</i> .	or dotted half note rest	о	= 3 beats	
half note	P	or half note rest	<u> </u>	= 2 beats	
quarter note	•	or quarter note rest	*	= 1 beat	

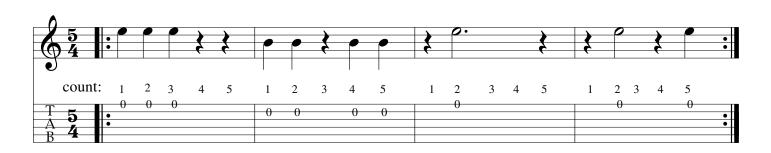
TIME SIGNATURES WITH "8" ON THE BOTTOM

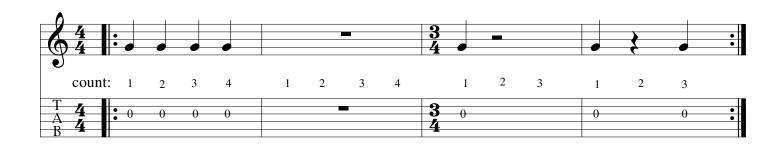
dotted whole note	ο.	or dotted whole note rest	• • •	= 12 beats
whole note	o	or whole note rest	_	= 8 beats
dotted half note	ρ.	or dotted half note rest	•	= 6 beats
half note		or half note rest		= 4 beats
quarter note	•	or quarter note rest	}	= 2 beats

Whole, Half, Dotted Half And Quarter Rests perform each rest to accurately end the previous note









THE TIE AND AN INTRODUCTION TO SYNCOPATION

A tie is a curved line which connects two written notes of the same pitch. It has three uses:

(1) To connect two notes separated by a bar line. Notice how the tie continues the note from one line of music to the next.



(2) To produce note values that cannot be written with a single note. The first two notes below total two and a half beats. There is no single note that has that value, so two or more notes have to be added together by using a tie.



(3) To connect two notes representing a continuous sound which has been divided with an "imaginary bar line." Measures with four or more beats are easier to read when divided into groups of two or three beats. The "imaginary bar line" shown in example 1 below with a dotted line divides the measure of 4/4 into two sections of two beats each. Example 2 would sound exactly the same, but is more difficult to read.



Whole Beat Syncopation

Syncopation is accenting of the part of the bar that is normally unaccented. Without any written indication of a particular accent, the first beat of a bar is usually played loudest because it begins the bar. The remaining beats are usually played louder than notes between the beats.

Sustain syncopation is where the accent on a normally unaccented part of the bar is sustained onto the normally accented part of the bar that follows it. Rest syncopation is where the accent on a normally unaccented part of the bar is immediately followed by a rest on the normally accented part of the bar.

The standard hierarchy of metric accent is that the first beat is loudest, the beat halfway through the bar next loudest, then the last beat, and finally the remaining beats. If this is contradicted, syncopation has occurred. Playing the fourth of four beats louder than the first beat that follows it is syncopation. Even playing the third beat louder than the first of four is syncopation.

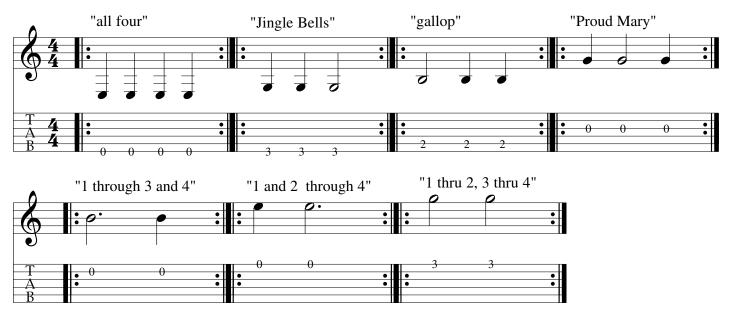
Quarter and Half Notes With Sustain Syncopation and Rest Syncopation

play this exercise on any one note



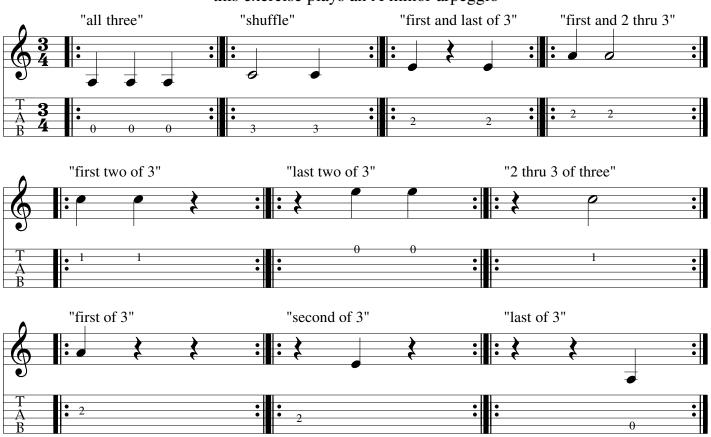
The First Seven Four-Pulse Rhythmic Words in Whole Beats

this exercise plays an E minor arpeggio



The First Ten Three Pulse Rhythmic Words in Whole Beats

this exercise plays an A minor arpeggio



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Quarter, Half, Dotted Half and Whole Notes With Sustain Syncopation

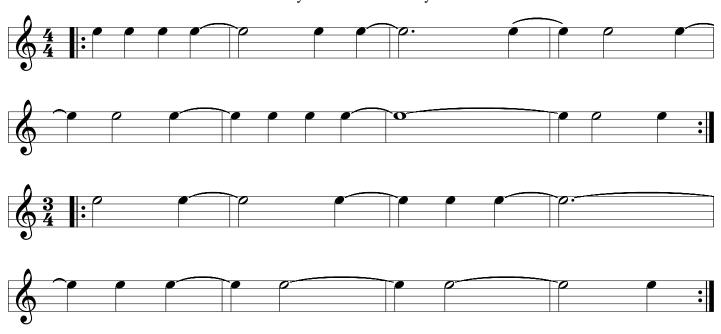
Review With No Syncopation, No rests.

This exercise plays an E minor pentatonic scale (Em7/11 pentatonic, to be exact).



Sustain Syncopation

Play this exercise on any one note.



Quarter, Half, Dotted Half and Whole Notes With Rest Syncopation

Review With Rests, No Syncopation

This exercise plays a G major arpeggio.



Rest Syncopation

Play this exercise on any one note.

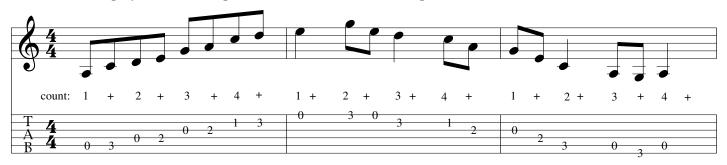


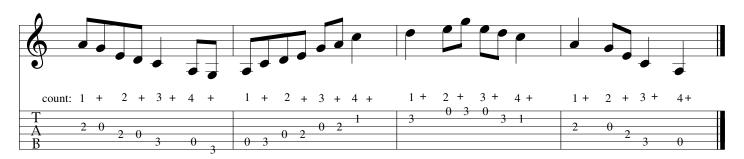
Pairs Of Eighth Notes

rhy 1.600

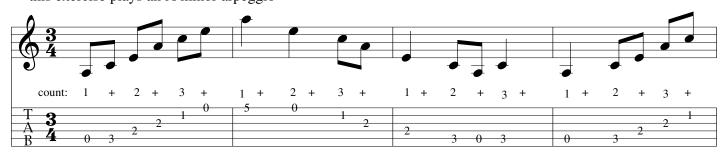
In the 4/4 and 3/4 time signatures below, eighth notes get a half beat each. These exercises use them in pairs beginning on the beat only. They should be counted EVENLY as shown below the notes: with a number representing the first half beat and the syllable "and" (represented by "+") on the last half of the beat.

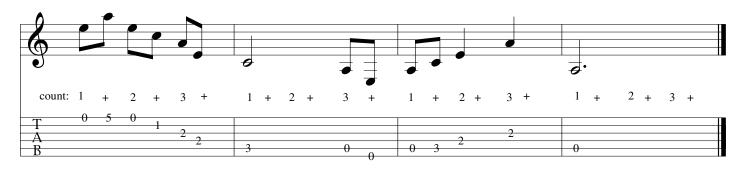
this exercise plays an A minor pentatonic scale (A minor 7/11 pentatonic scale)





this exercise plays an A minor arpeggio



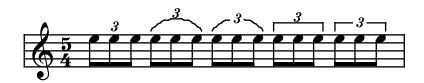


TRIPLETS

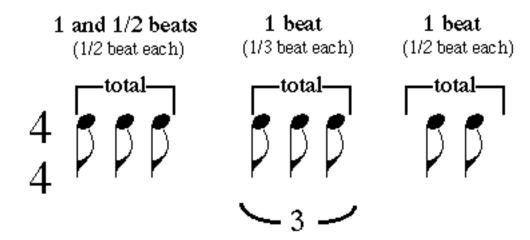
Triplets are groups of three notes that, as a group, take the space in time of three notes of the same kind.



The notes in a triplet may be enclosed by a bracket or a curved line. The number "3" is written either interrupting the middle of the bracket or curved line; or it is written just outside the bracket or curved line. If the notes are joined by a beam, the three may be written outside the beam.



Three eighth notes in 4/4 time would total one and one half beats (one half of a beat each). If the three eighth notes were indicated as a triplet, they would total one beat (one third of a beat each). Two eighth notes (not in a triplet) would total one beat (one half a beat each). The total of the triplet is equal to the total of two of the same note.

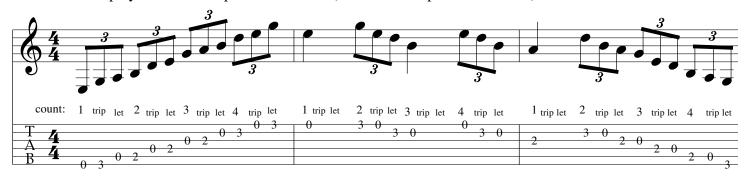


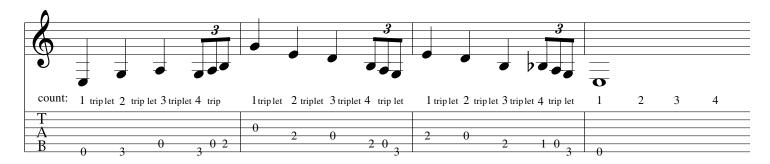
Eighth Note Triplets

rhy 1.751

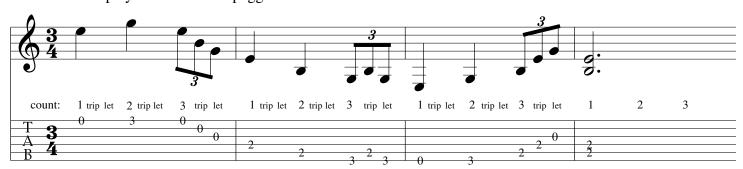
In 4/4 and 3/4 time signatures, eighth notes tripets get a third of a beat each. These exercises use them in groof three beginning on the beat only. They should be counted EVENLY with a number representing the first thi of the beat and the syllables "trip" and "let"representing the last two thirds of the beat.

this exercise plays an E minor pentatonic scale (E minor 7/11 pentatonic scale)





this exercise plays an E minor arpeggio



COMPOUND TIME

COMPOUND METER

When the meter is in a larger number, such as six or seven, it is often divided into subgroups. Seven, for example may be counted "one, two, three, four, one, two, three, one, two, three, four, one, two, three, etc." this is called *compound meter* (1, 2, 3, 4, 1, 2, 3, 1, 2, 3, 4, 1, 2, 3, etc., in *Arabic numerals*).

COMPOUND TIME SIGNATURES

Compound time signatures are used to indicate compound meter. They show the standard time signature (one number over another), followed by a combination of time signatures enclosed in parenthesis with "+" symbols between them. As the plus ("+") symbols imply, the top numbers on the time signatures within the parenthesis should add up to the number on top of the original time signature (to the left of the parenthesis).

This is a standard 5/4 time signature.



This is a compound 5/4 time signature. The dotted barline is not normally shown, but is included here to illustrate the 3/4 and 2/4 parts of each bar.



This is a standard 6/8 time signature.



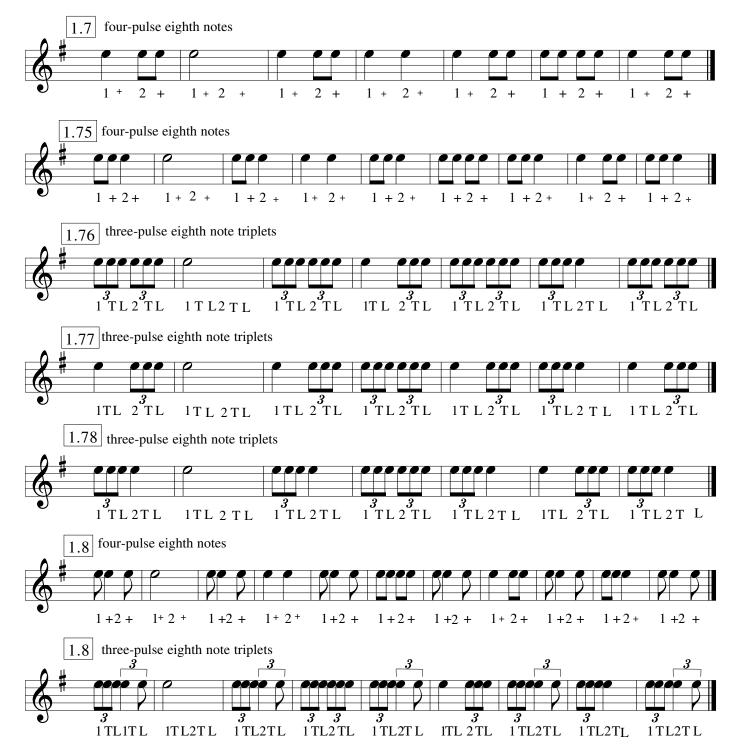
This is a compound 6/8 time signature. The dotted barline illustrates the two parts of each bar, each of which are equivalent to a bar of 3/8.



RHYTHMIC WORD EXERCISES

Practice these exercises in order. Each rhythmic word is introduced with a new "level" number, shown in a box at the left. The new rhythmic word will be played in every-other bar. The other bars review all previous rhythmicwords.

Down and up strumming symbols are shown below the counting symbols. The counting symbols "1, +, 2, +" are shown below the notes ("+" represents "and) to show half beats. "1, e, +, a" represent quarter beats ("one, ee, and, uh"). "1, T, L, 2, T, L" represents thirds of a beat ("one, trip, let, two, trip, let").



THREE EIGHTH NOTES COMPARED TO AN EIGHTH TRIPLET

The same three-pulse rhythmic words can occur in compound time signatures where there are groups of three eighth notes, such as 6/8 and 12/8, and in time signatures where there are eighth note triplets, such as 2/4 and 4/4.

Three eighth notes in 6/8 take up one half of a bar. Likewise, three eighth notes in a triplet take up one a half of a bar in 2/4. In the example below, each 3/8 section of 6/8 is counted with the three syllables "1, 2, 3." Each beat in 2/4 is also counted with three syllables: "1, trip, let" or "2, trip, let". Compare the 6/8 and 2/4 versions below to see that each note in 6/8 is assigned the same number of syllables are the respective note in 2/4. The difference is that the 6/8 version would have more drive, since each syllable is one beat. In the 2/4 version, the first of each three syllables begins a beat. The music would generally have more "drive" in 6/8, because every beat has the subtle metric accent. In 2/4, only the first of each triplet would have the implied metric accent.



A slow blues in 4/4 typically uses three subdivisions per beat, so the music is based on eighth note triplets. If all of the eighth note triplets were played in a bar of 4/4, there would be twelve notes to the bar. Likewise, there can be twelve eighth notes in a bar of 12/8.



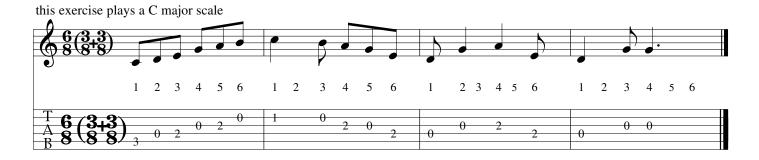
Again, the difference would be more drive in 12/8. Imagine the bass and drums playing on most or all of the eighth notes, making the music very active. By comparision, in 4/4 with triplets, it would be more typical for the bass and drums to play "laid back" by play longer notes such as whole beat notes, with occasional triplets.

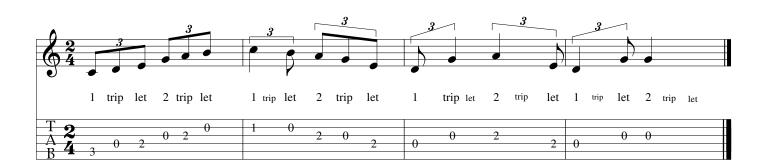
Example of "driving" blues bass in 12/8 versus "laid back" blues bass in 4/4 with triplets



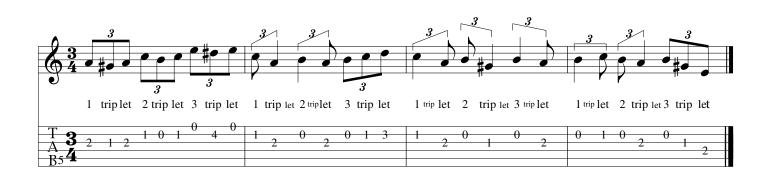
Eighth Note Groups of Three Compared To Eighth Note Triplets

rhy 1.802



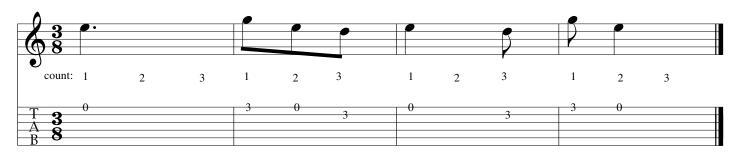


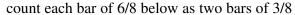


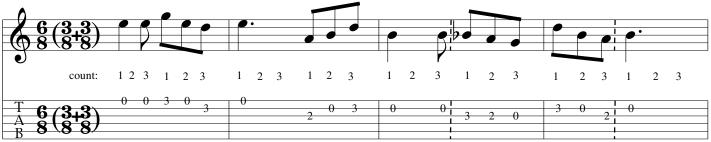


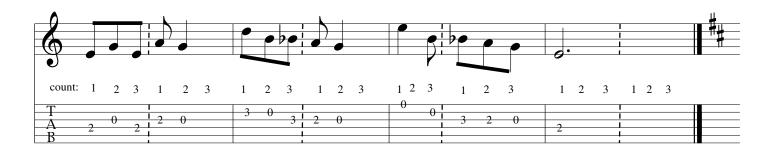
The First Four Three-Pulse Rhythmic Words In Eighth Notes

rhy 1.805









count each bar of 12/8 below as four bars of 3/8



RHYTHMIC WORD EXERCISES

Practice these exercises in order. Each rhythmic word is introduced with a new "level" number, shown in a box at the left. The new rhythmic word will be played in every-other bar. The other bars review all previous rhythmicwords.

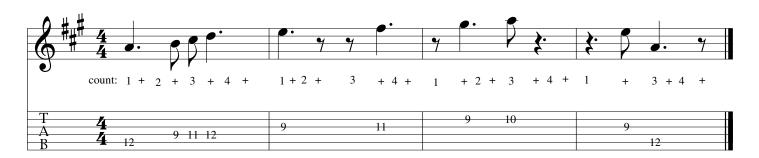
Down and up strumming symbols are shown below the counting symbols. The counting symbols "1, +, 2, +" are shown below the notes ("+" represents "and) to show half beats. "1, e, +, a" represent quarter beats ("one, ee, and, uh"). "1, T, L, 2, T, L" represents thirds of a beat ("one, trip, let, two, trip, let").

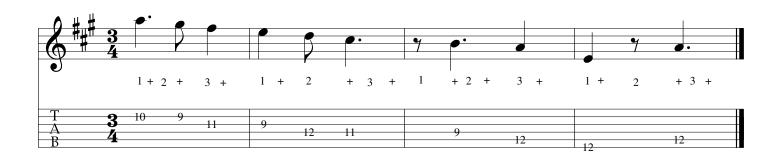


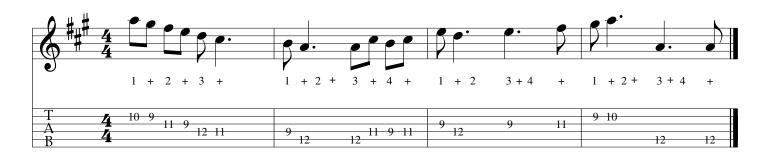
Dotted Quarter Notes

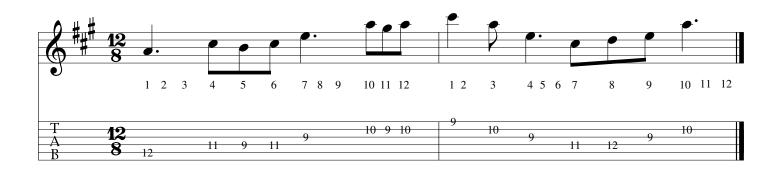
rhy 1.905

In 4/4, 3/4, 2/4, etc., quarter notes get one and a half beats. In 12/8, 6/8, etc. they get three beats.









FOUR-PULSE RHYTHMIC WORDS IN EIGHTH NOTES

Like words in a spoken language, *rhythmic words* are groups of characters which have meaning as a unit. When we see the word "apple" we don't think of the letters "a-p-p-l-e", but rather of a kind of fruit or computer. A musician reads of notes in groups, which have become familiar.

Four pulse rhythmic words are groups of notes which represent a choice from four regular pulses. The four pulses are of equal length in time. Their are eight four-pulse rhythmic words without rests:

"All four" plays all four of the pulses.

"Gallop" plays the first, third and fourth of the four pulses. The note on the first pulse sustains through the second pulse.

"Jingle Bells" four-pulse rhythmic word is a choice of the first three of four parts and is the thematic rhythm of the familiar Christmas song.

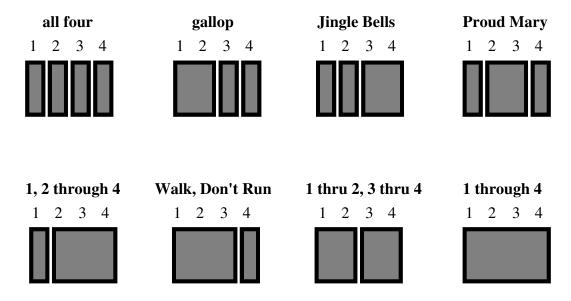
"Proud Mary" chooses first, second and fourth of the four pulses, and is the primary rhythmic idea in the Creedence Clearwater Revival rhythm guitar part.

"1; 2 through 4" chooses first and second of the four pulses. The note on the second pulse sustains through the fourth pulse.

"Walk Don't Run" chooses first and fourth of the four pulses. The note on the first pulse sustains through the third pulse. It is the bass part of the main section in the Johnny Smith tune popularized as a Surf song by the Ventures.

"1 through 2; 3 through 4" chooses first and third of the four pulses. The note on the first pulse sustains through the second pulse. The note on the third pulse sustains through the fourth pulse. This rhythmic word plays the first and last halves of the four pulses.

"1 through 4" plays on the first pulse and sustains through the fourth pulse.



Four Pulse Rhythmic Words In Eighth Notes



Four Pulse Rhythmic Words In Eighth Notes (continued)

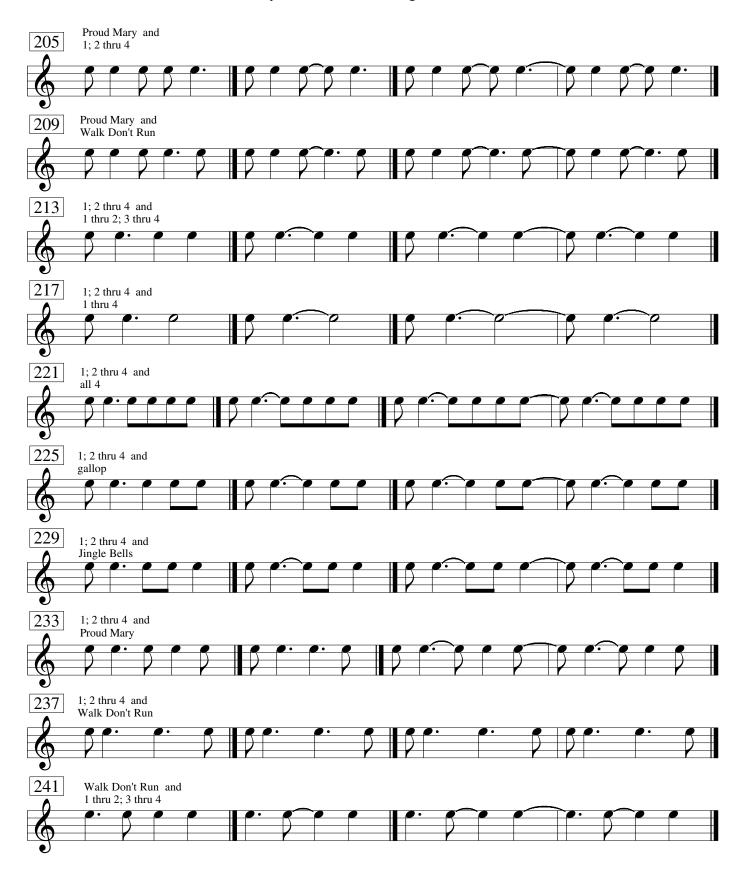


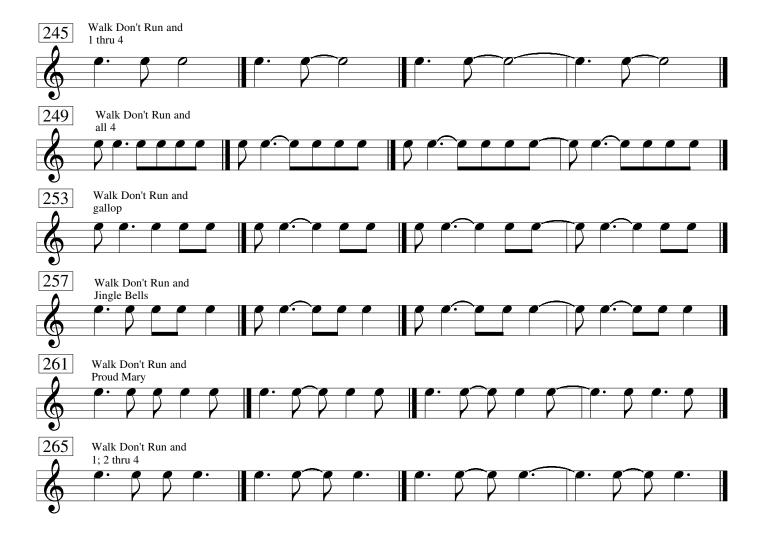
Four Pulse Rhythmic Words In Eighth Notes (continued)











COUNTING STRUMMED RHYTHMS

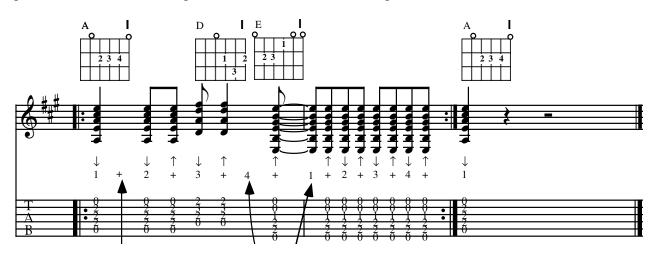
In chord progression examples presented throughout this level 1, counting symbols are usually provided above the tablature. Arrows above the counting symbols indicate the direction of strumming.

When there are two parts per beat, the traditional counting symbols are numbers for the first half of each beat, "1", "2", "3" "4", etc. and "+" (pronounced "and") for the last half of each beat. Each syllable "1, +, 2, +, 3, +, 4, +" represents a half beat.

Selection From A Continuous Motion

Most strumming involves a continuous motion of the strumming hand. The rhythm is selected from the continuous motion by somtimes missing the strings. Two parts per beat are strummed down on the numbered beats and up on the "ands" (+). When there is no arrow above a counting symbol, you should still move in the appropriate direction, down on the numbers (1, 2, 3, 4 etc.), up on the "ands" (+).

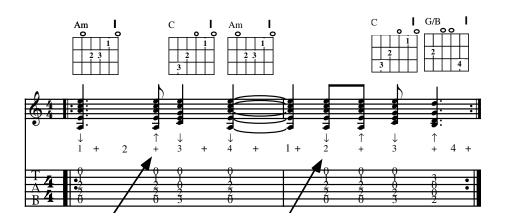
In the example below, you should make the regular upward strumming movement on the "+" after "1", but miss the strings. Likewise, on the beat "4" of the first bar and on beat "1" of the second bar, you should make the regular downward strumming movement, but miss the strings.



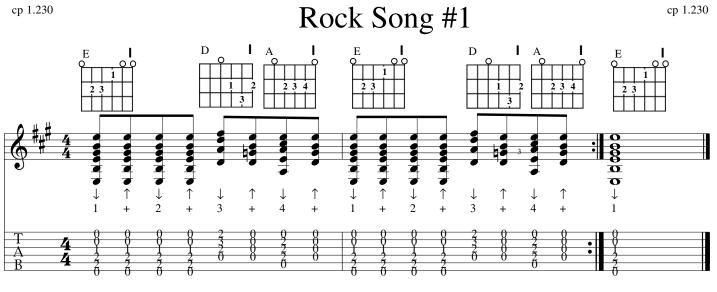
In practicing a strummed rhythm, speak (or as least think) each counting symbol (1, +, 2, +, etc.). You can begin by stopping wherever you need to, but then resume counting with the correct direction. If you make a mistake, don't go back to the beginning. Replay the part of the beat where you made the mistake, speaking the appropriate counting symbol and continue.

Resuming The Strumming After A Pause

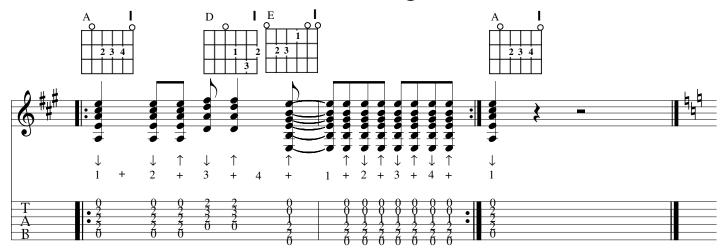
When strums do not occur during two or more consecutive counting symbols, the strumming hand may rest. However, it is very important that the strumming hand is in the appropriate position to strum the correct direction when it resumes.



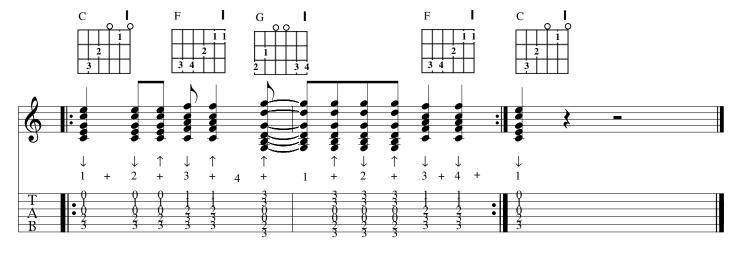
Here are a few examples to practice:

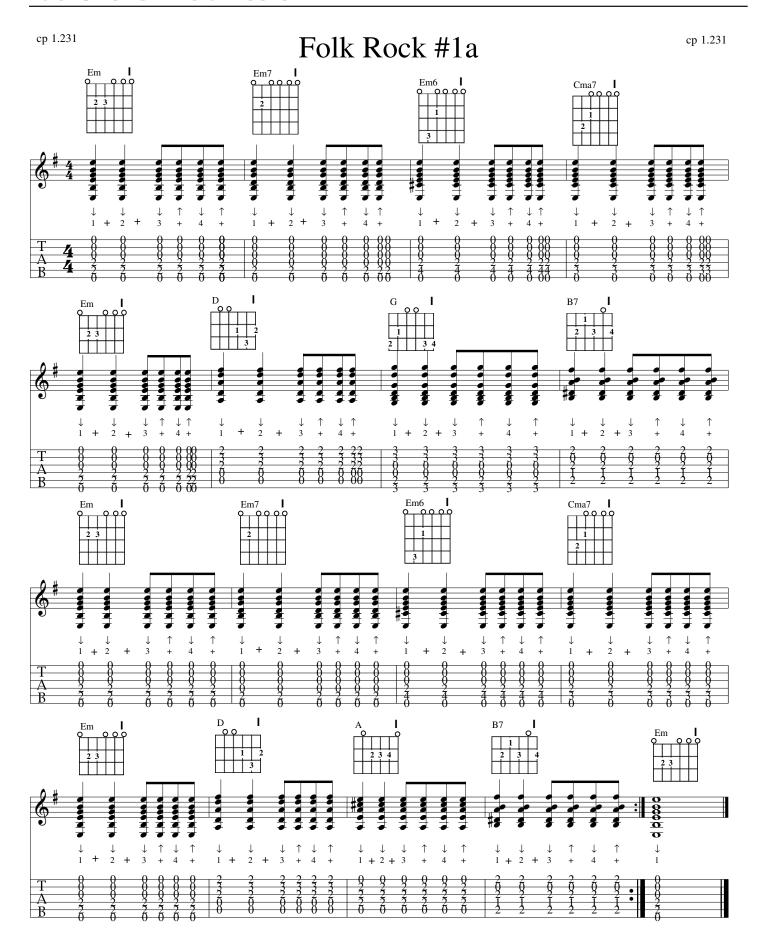


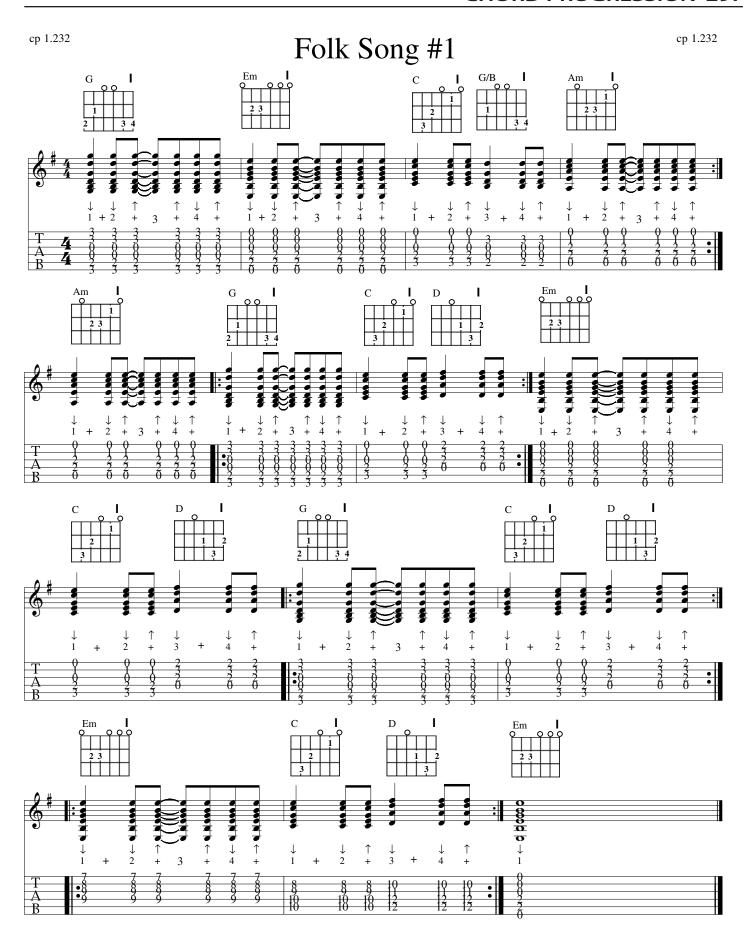
Rock Song #2 in A

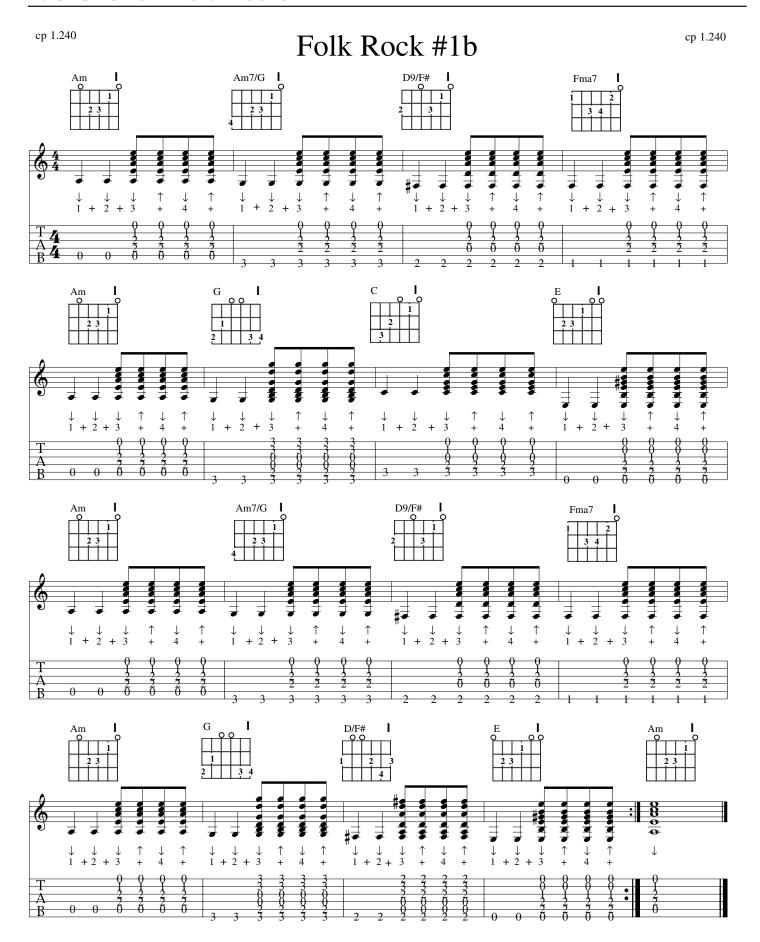


Rock Song #3 in C

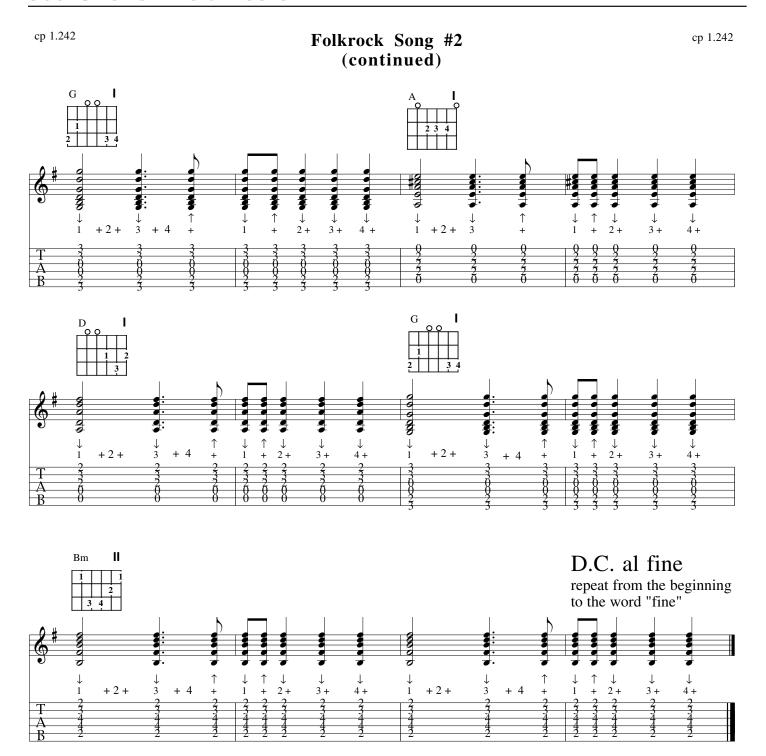






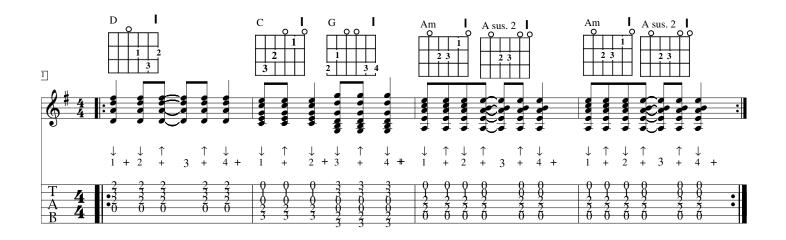


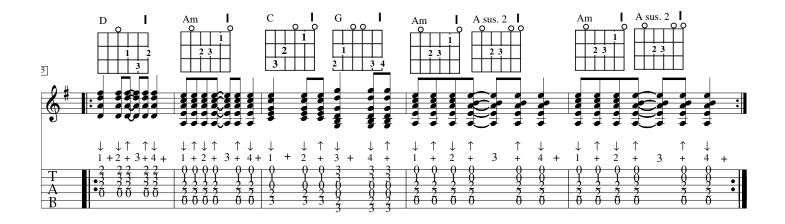
cp 1.241 Folk Rock Song #2 cp 1.241 +2 ++ 2 + + 2 + +2 +fine + 2 + + 2 + + 2 +

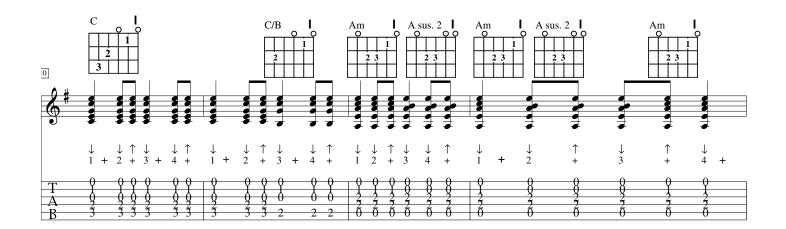


Old English Folk Song

cp 1.270

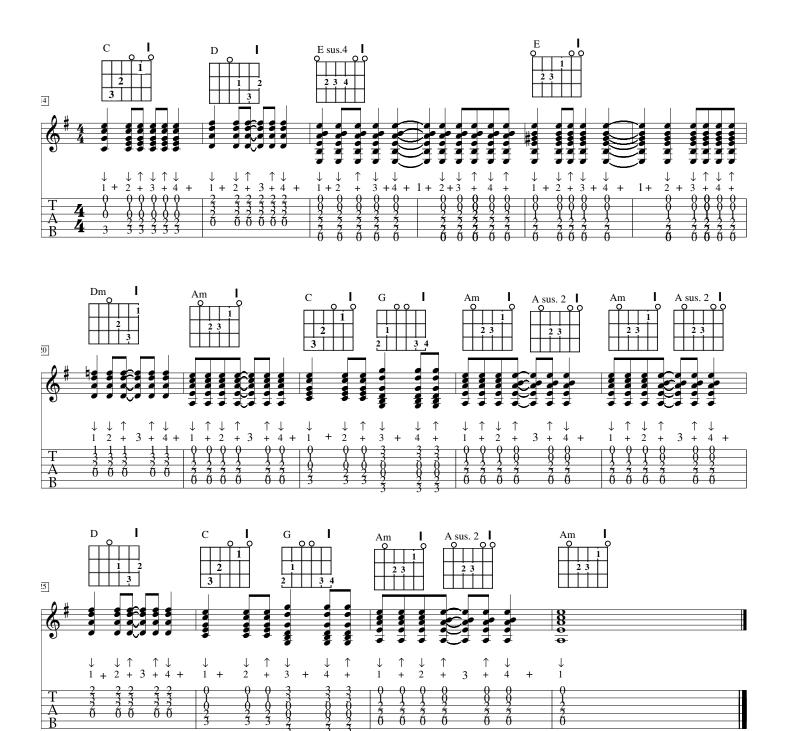






Old English Folk Song (continued)

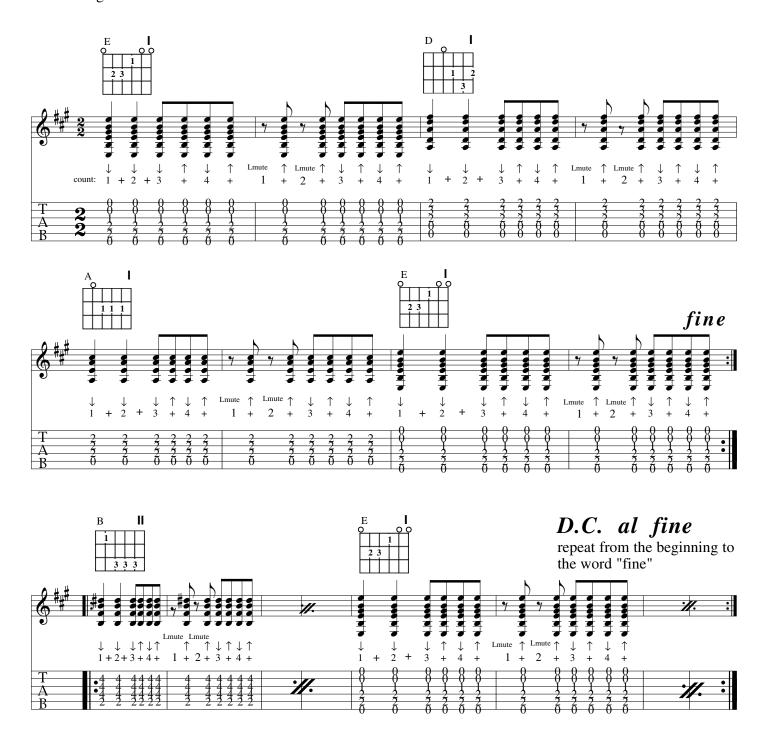
cp 1.271



Rock Strum With Mutes

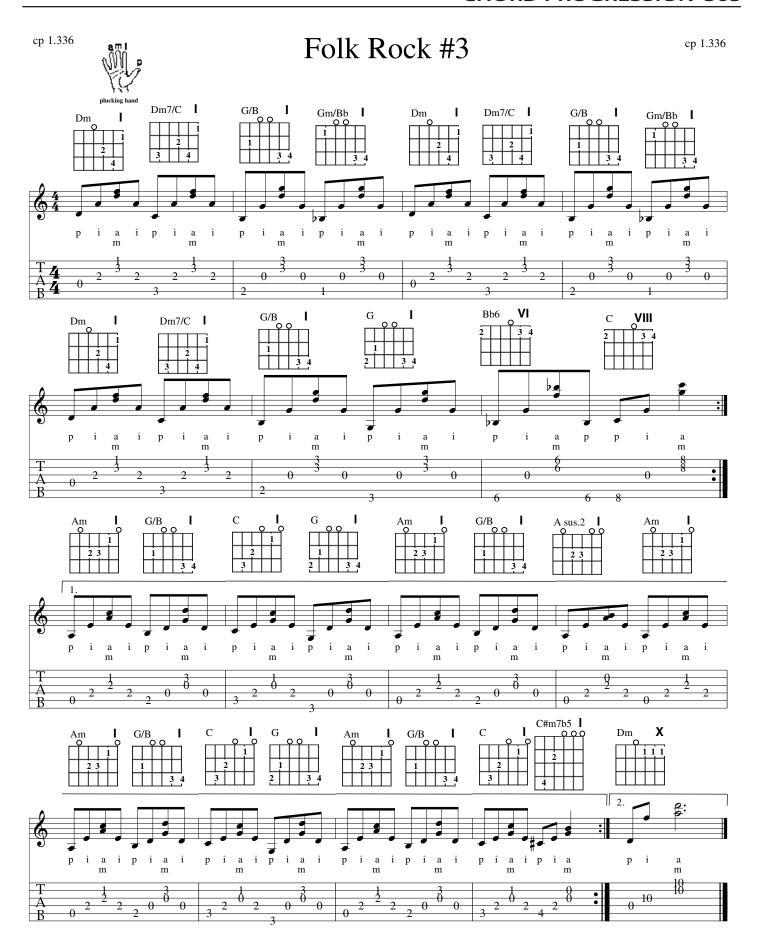
cp 1.327

Mute by touching the strings very gently. With a chord that involves no open strings, such a the "B" chord below, relax the fretting fingers to mute. With the "E" and "D" chords, use the little finger to mute. Keep the little finger straight and relaxed to mute. To mute the "A" chord, keep all of the free fingers straight and relaxed to mute.



this symbol: **///** indicates a repeat of the previous TWO measures

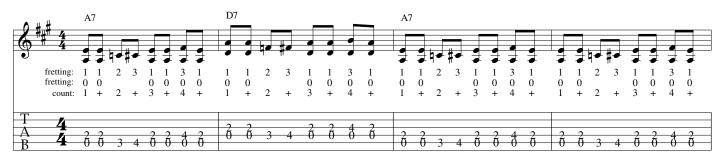


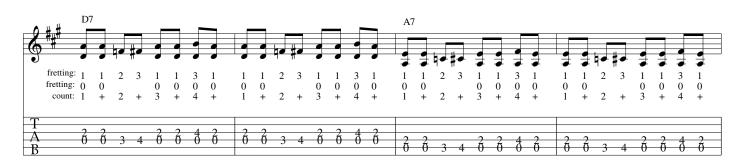


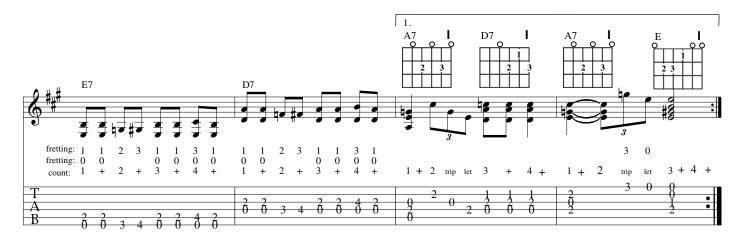
Chicago Blues #1 In A

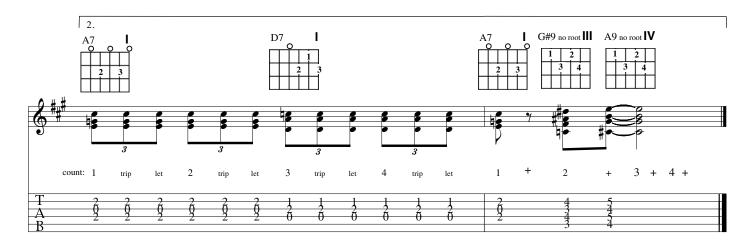
cp 1.338

Swing Eighths



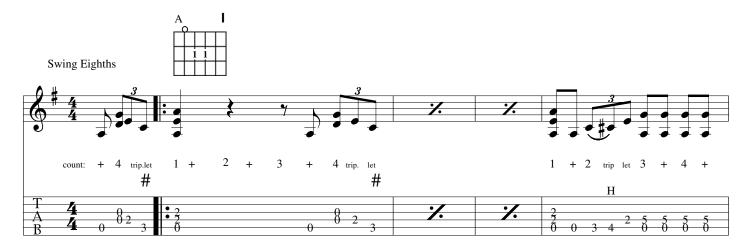


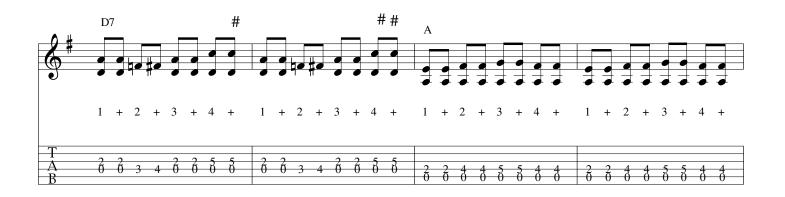


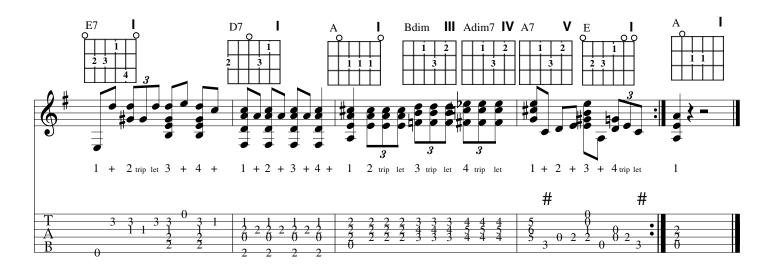


cp 1.352

Mojo/Voodoo Blues #2 in A







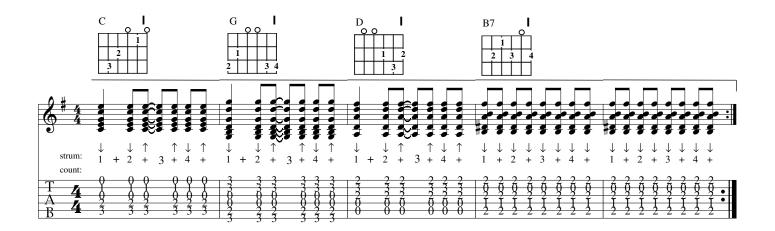
cp 1.455 House Of The Rising Sun cp 1.455 practice this separately picking and fingerpicking Am Am $\begin{array}{c} i & m \\ \downarrow & \downarrow \\ + & 3 \end{array}$ m ↑ 5

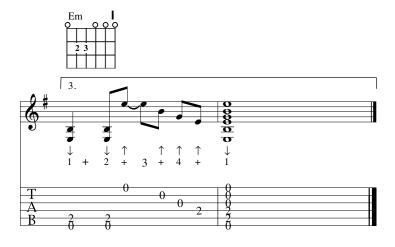


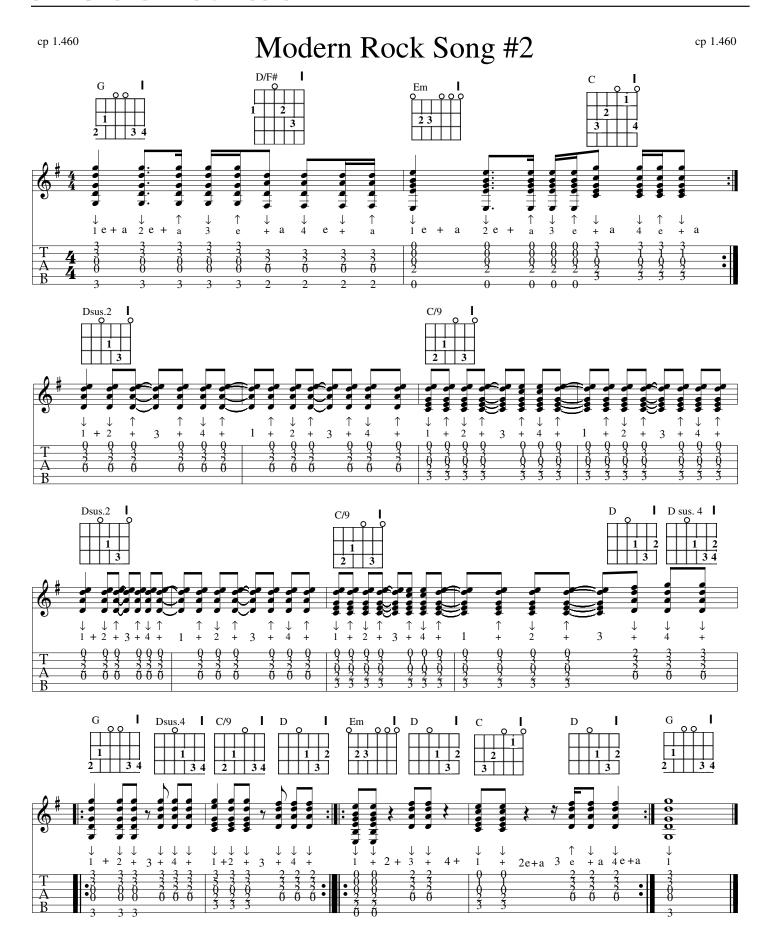
cp 1.457 Modern Rock Song #1 (continued) cp 1.457 D Em 2. strum: count: В7 3 3 D 3

Modern Rock Song #1 (continued)

cp 1.458



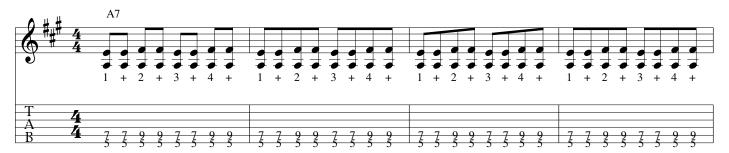


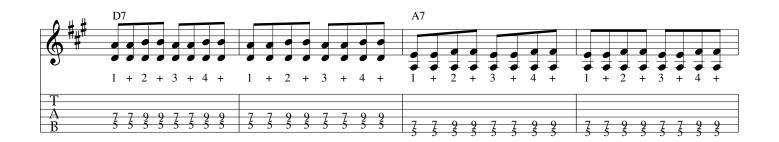


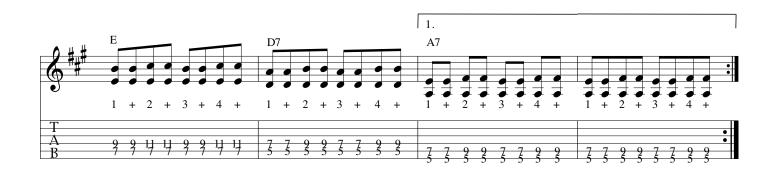
Chuck Berry Style Blues Rhythm

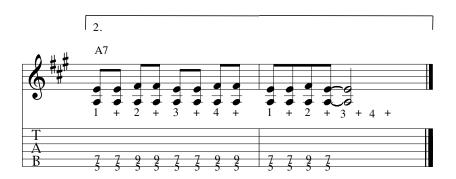
cp 1.545

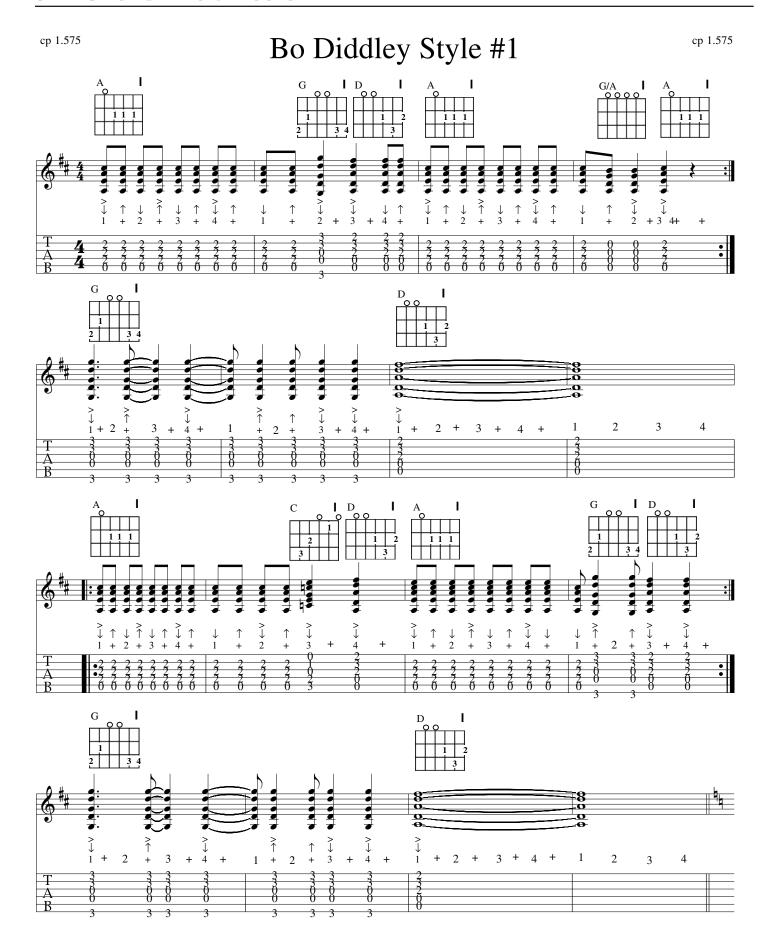
pick this with all downstrokes

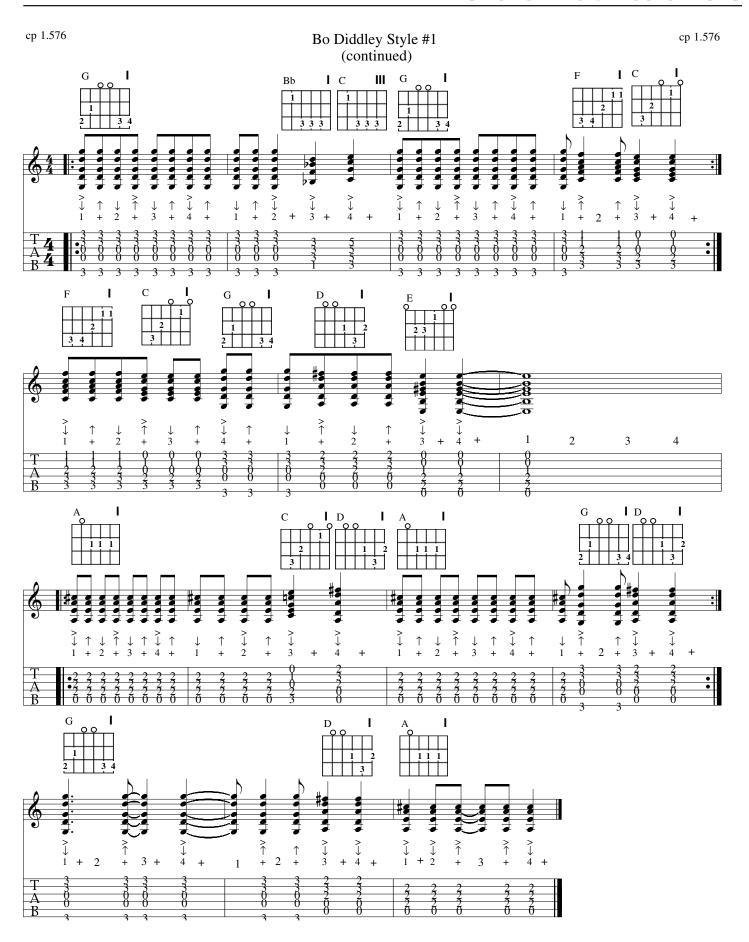






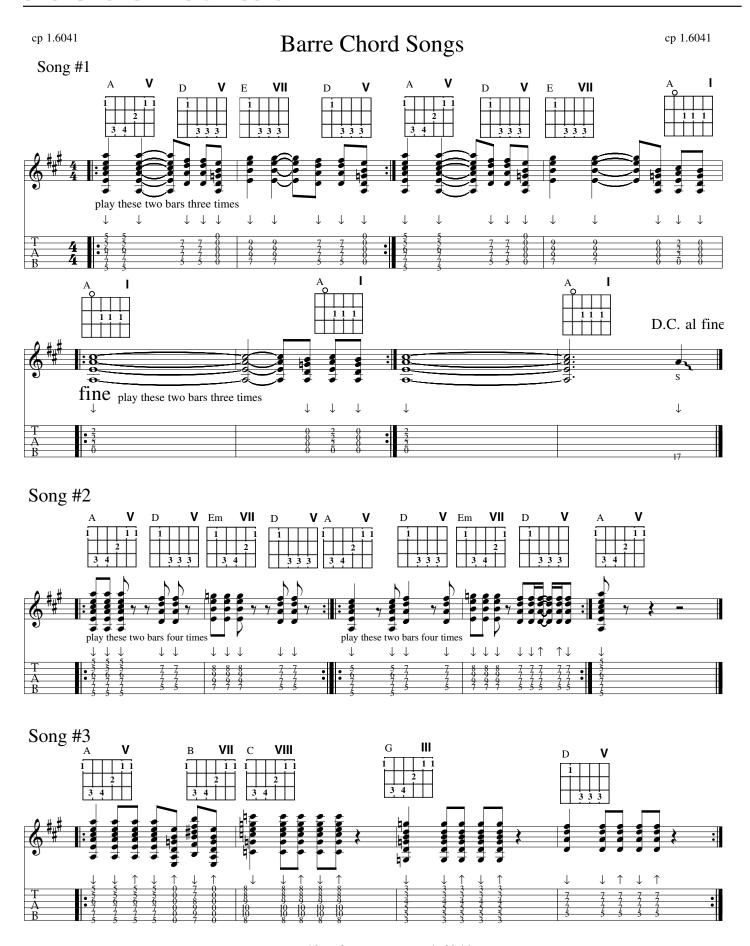


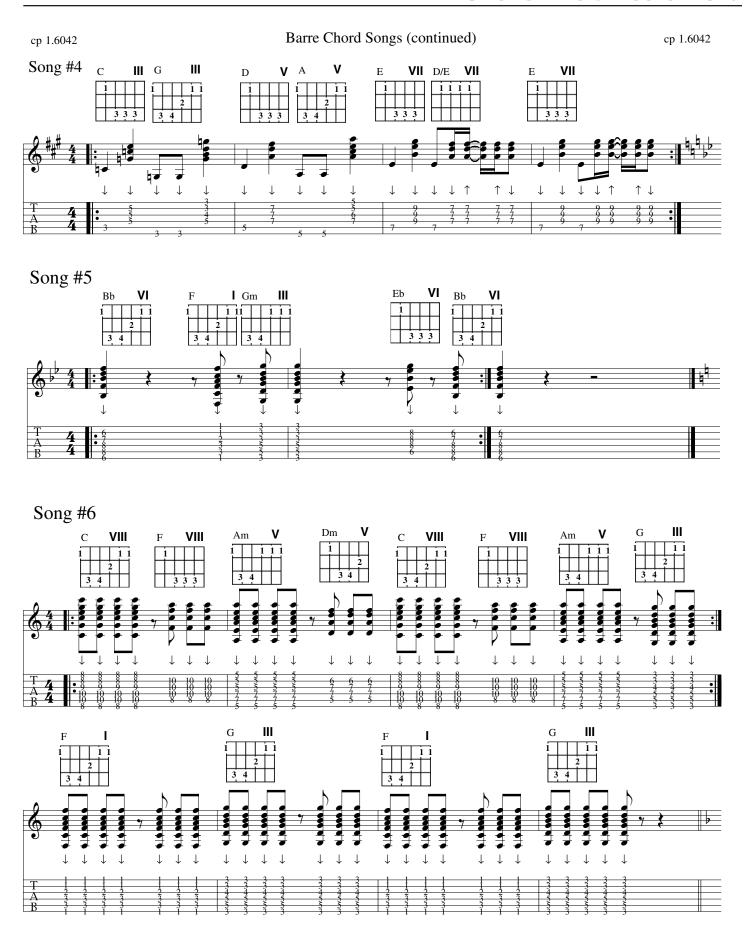


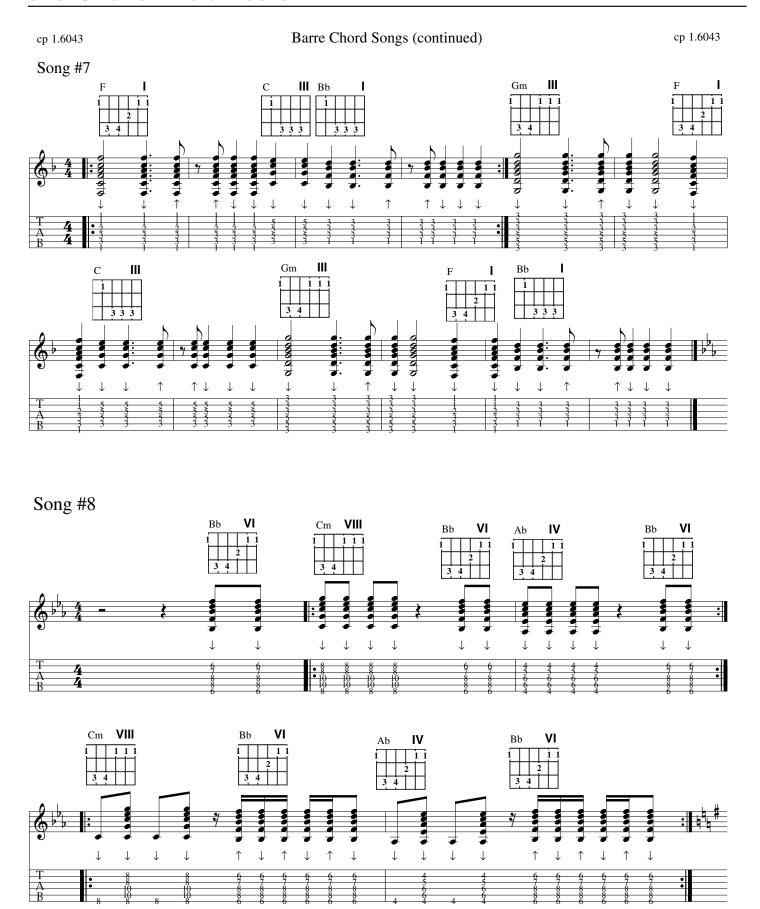


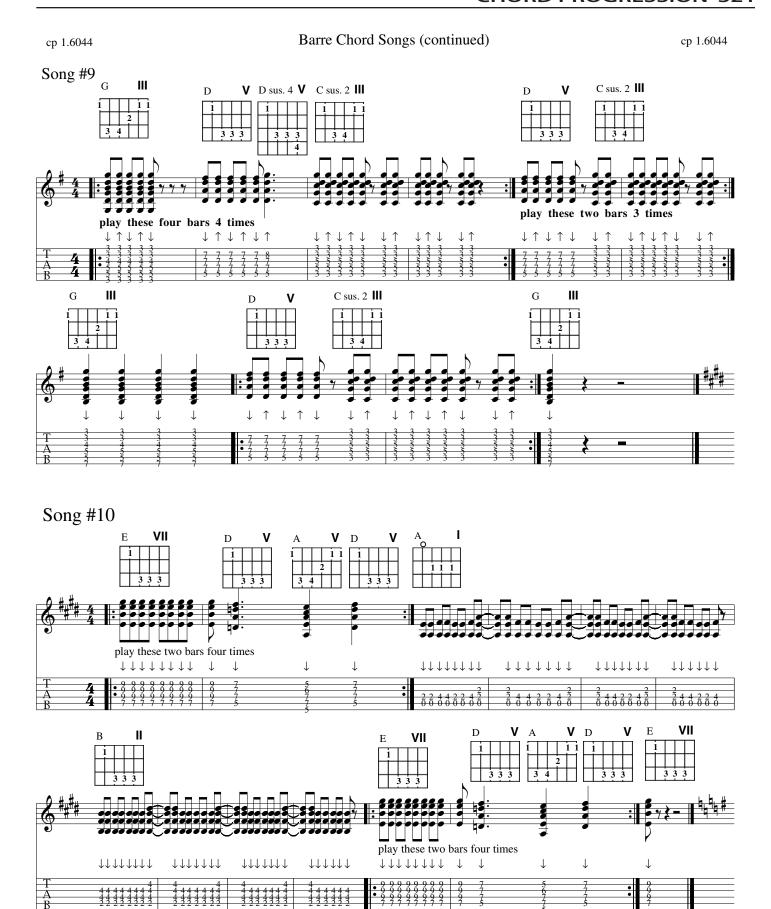
Ornamenting Open Chords #1 cp 1.580 cp 1.580

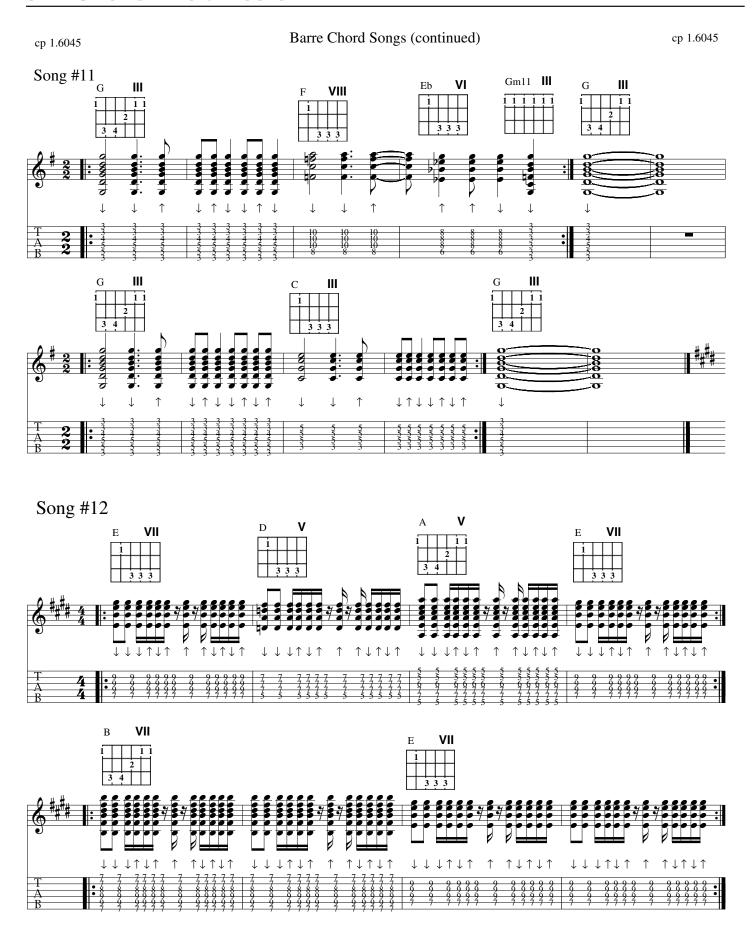
Ornamenting Open Chords #2 cp 1.581 cp 1.581 "A" Mixolydian scale

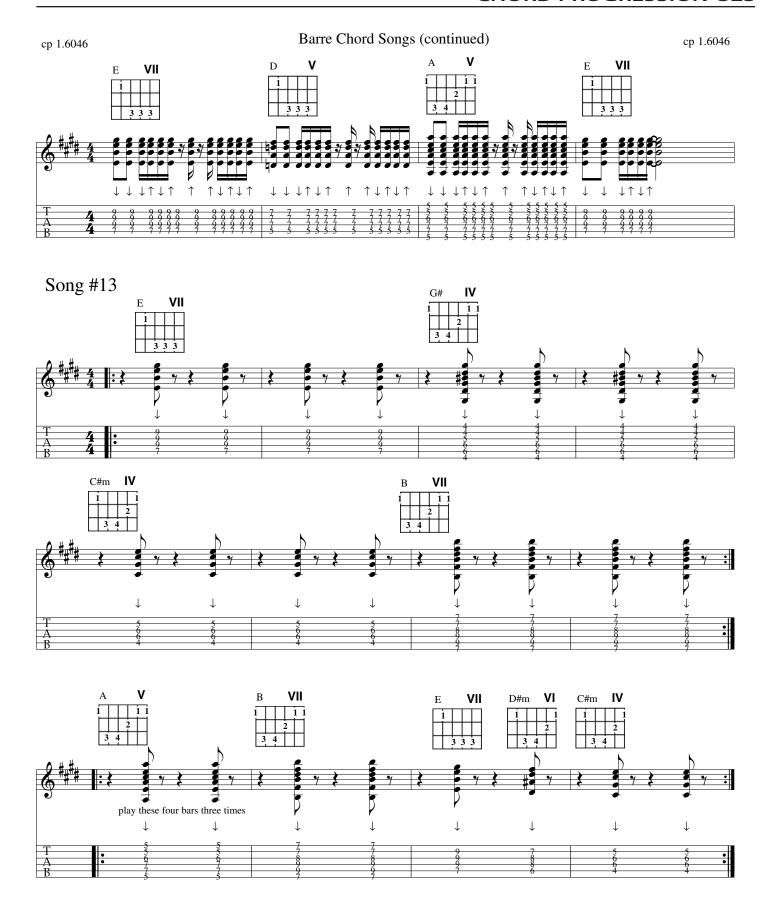








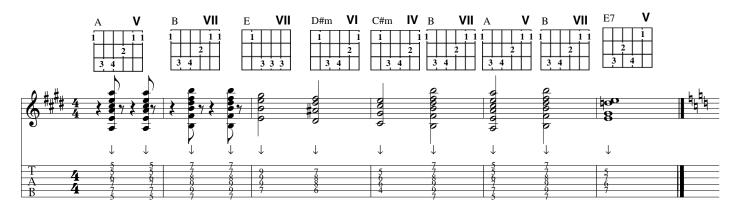




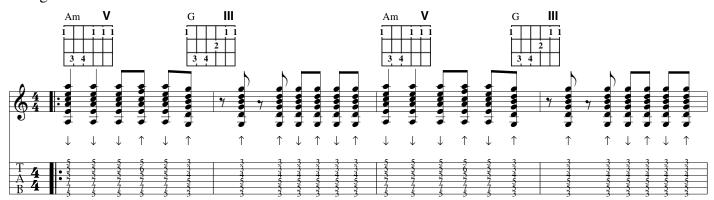
cp 1.607

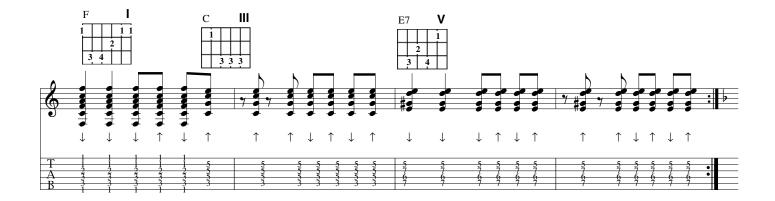
Barre Chord Songs (continued)

cp 1.6047



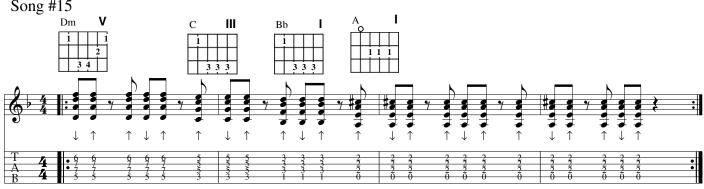


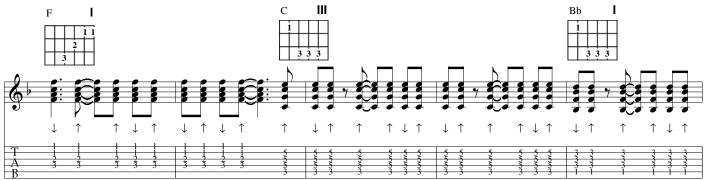


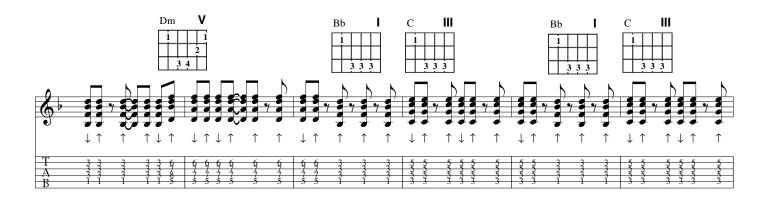


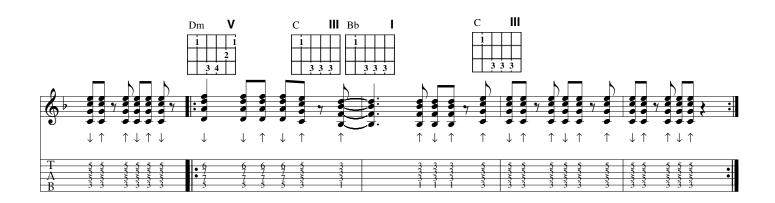


Barre Chord Songs (continued)











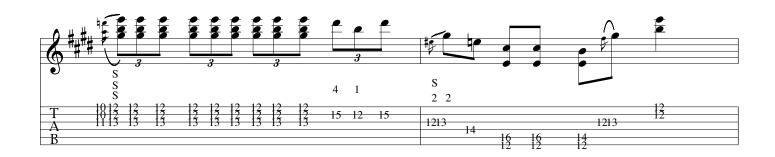
Albert King Style #1 cp 1.741 cp 1.741 rhythm guitar Gma7 III В7

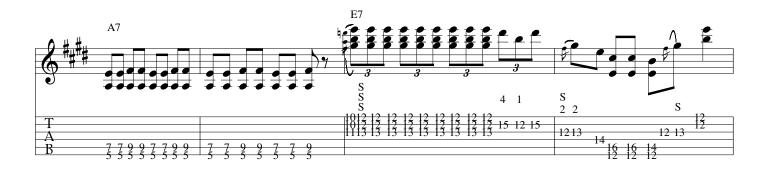
cp 1.770

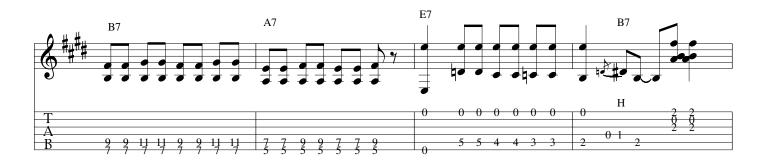
Chicago Blues #2 in E





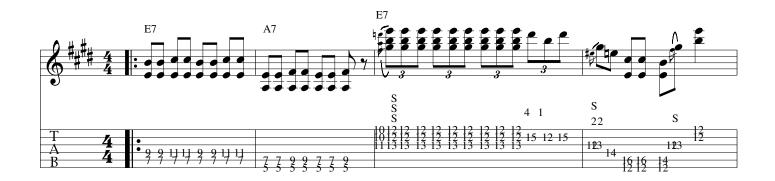


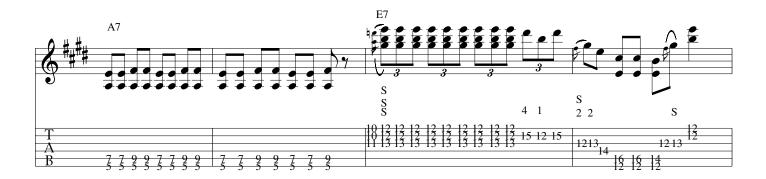


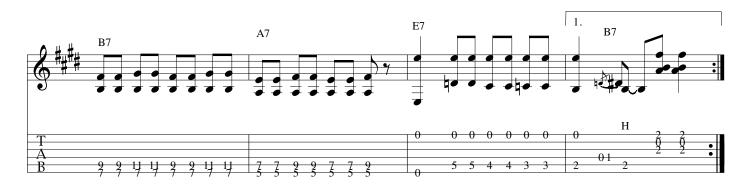


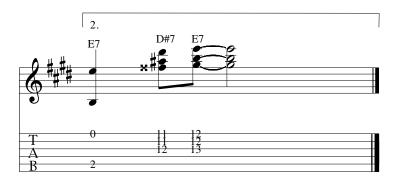
cp 1.771

Chicago Blues #2 in E (continued)



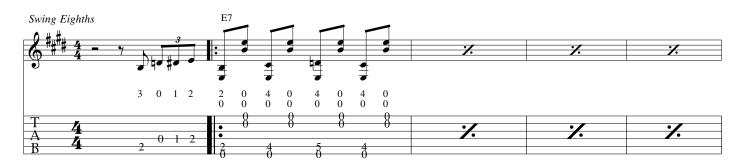


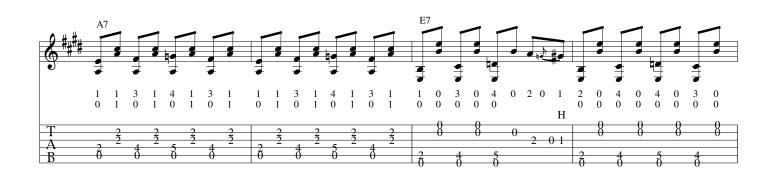


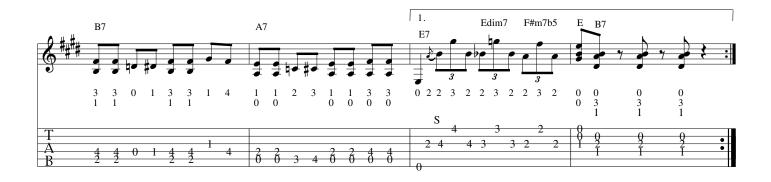


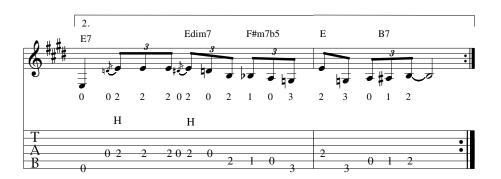


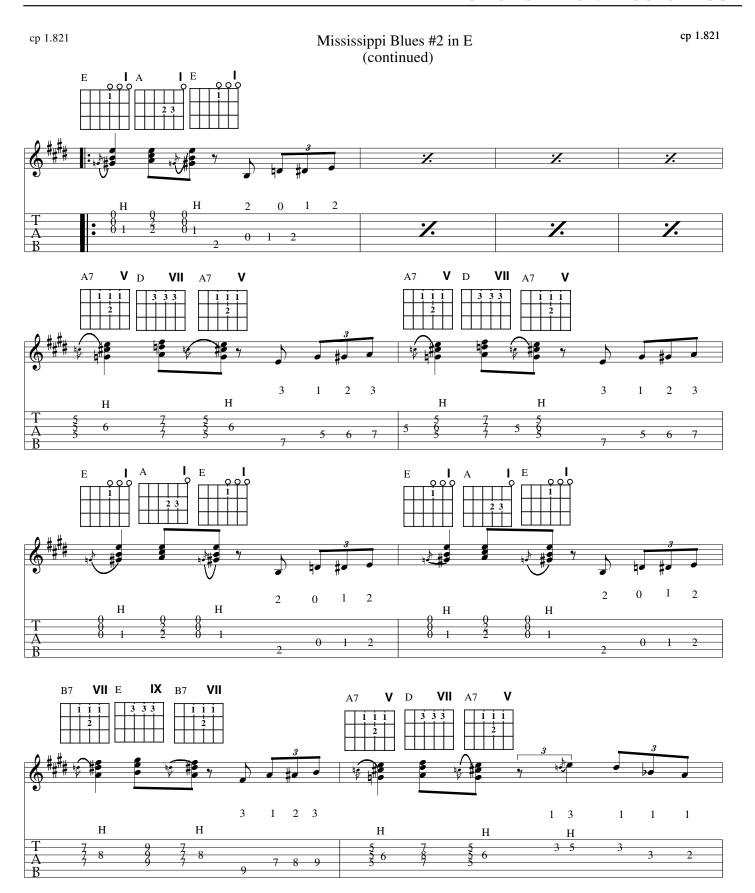
Mississippi Blues #2 in E

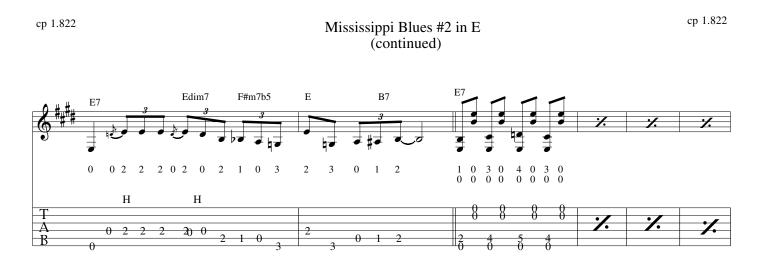


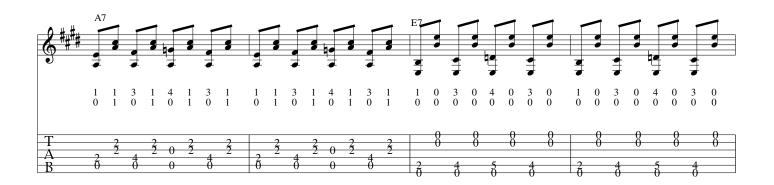


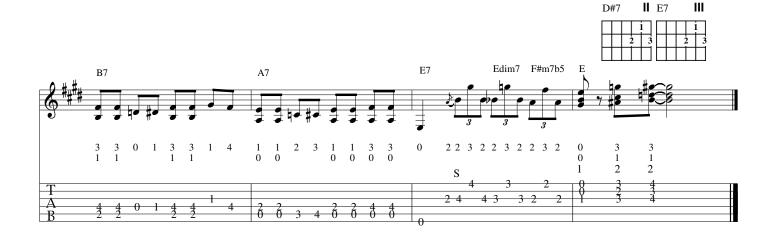












cp 1.823

Albert's King Style #2 - rhythm guitar

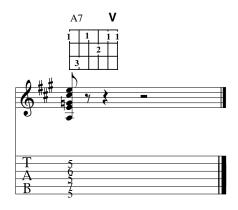
cp 1.823

pluck the bass notes with the thumb and the chords with the fingers



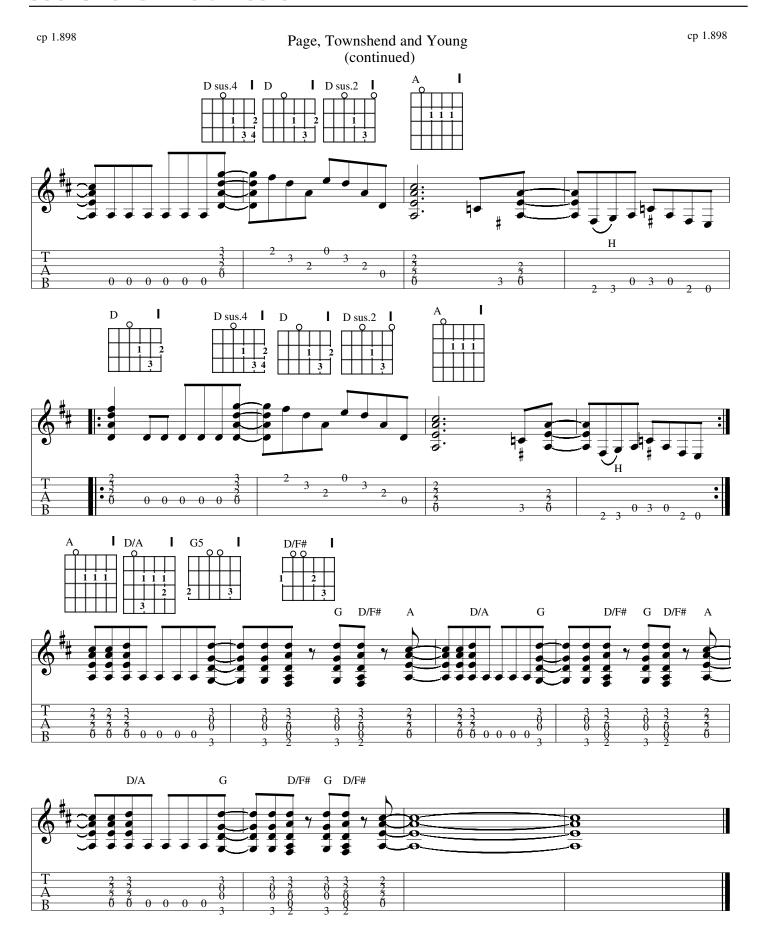
Swing Blues #1 Rhythm Guitar cp 1.865 cp 1.865 VII VIII VIII C7 C F9 C7 VIII 3 3 4 1 2 4 1 2 4 1 1 4 9 10 10 10 VIII Am7 no3 VII VIII C7 VII VII F9 3 2 3 3 1 1 10 VIII Ш C7 ٧ Dm7 Α7 X G9 IX Dm7 2 VIII © 1998 Jim Gleason. All Rights Reserved.



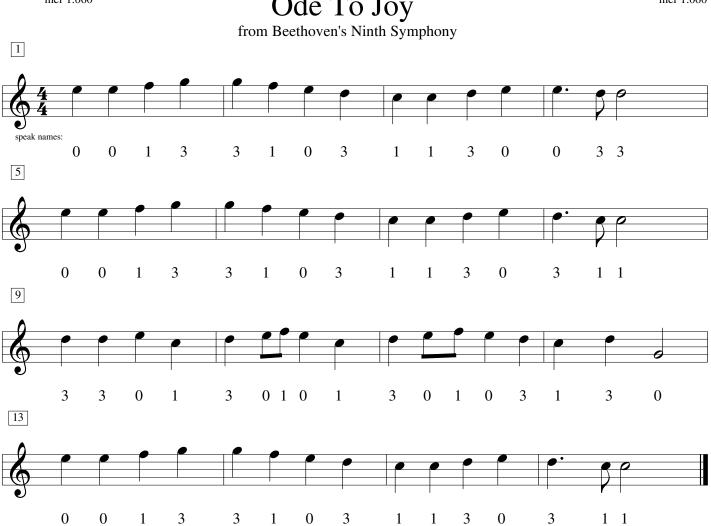


rhythm guitar for cp 1.870 cp 1.870 **B.B King Style** Eb9 **V** D9 I۷ Eb9 Ш A7b9 I۷ D9 Bm7 A6 Α9 I۷ D9 I۷ D# dim7 **V** ۷I Bb6 VII





Ode To Joy



E Minor 7/11 Pentatonic Licks open position

mel 1.065

Pick alternately down-up when you stay on a string. Pick in the direction of a new string you are moving to.



mel 1.066 mel 1.066

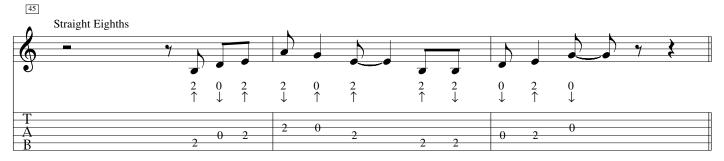


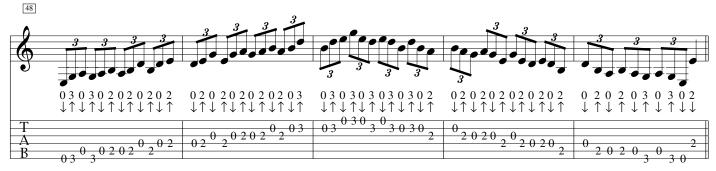
E Minor 7/11 Pentatonic Licks

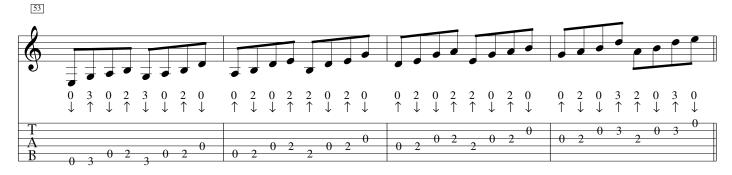
mel 1.067

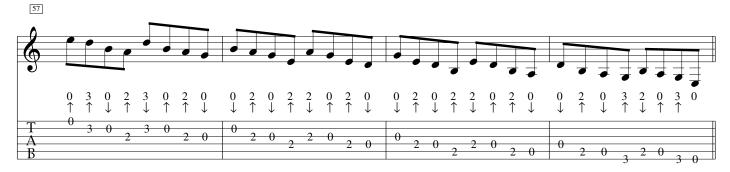
Open Position (continued)







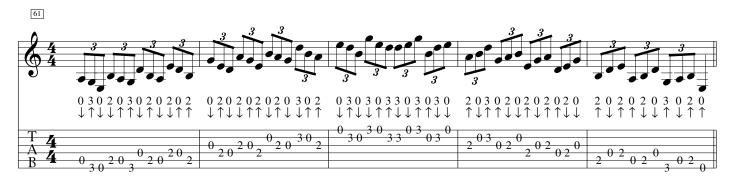


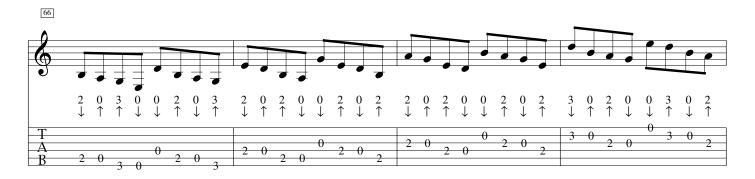


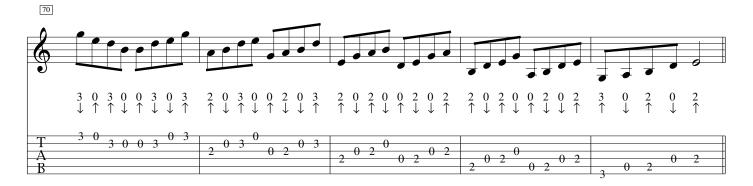
E Minor 7/11 Pentatonic Licks

mel 1.068

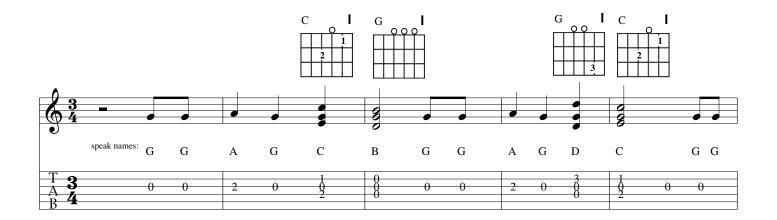
Open Position (continued)

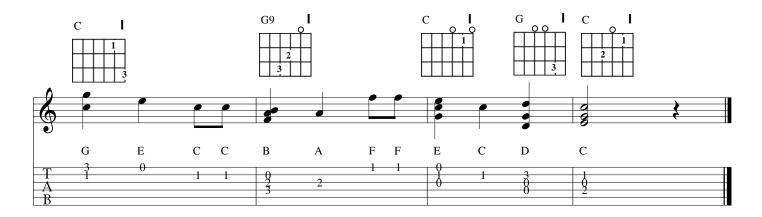






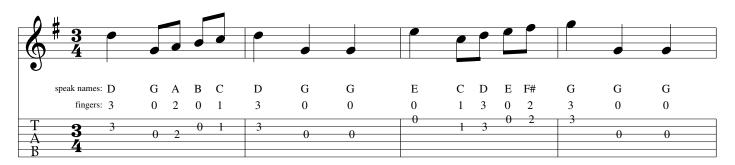
Happy Birthday use the guitar pick on this one

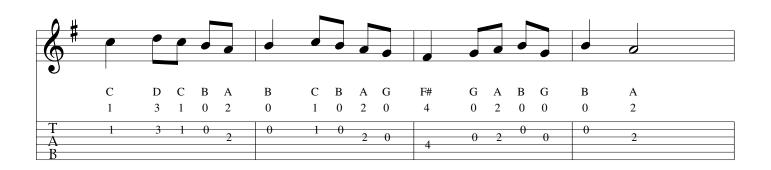


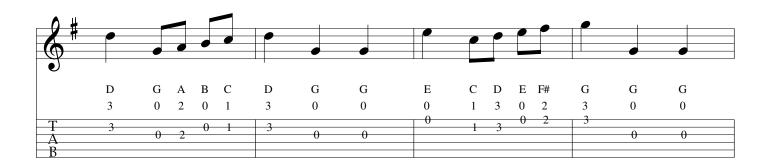


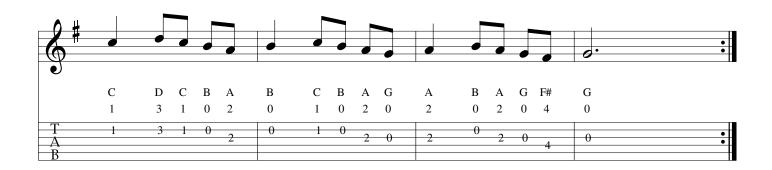
Minuet In G

from J.S. Bach's Anna Magdelana Notebook

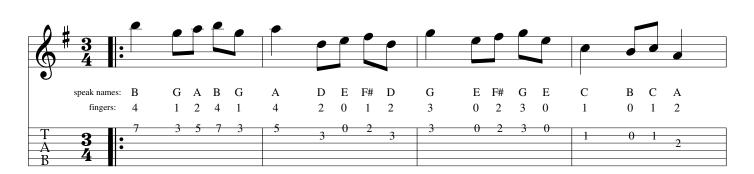


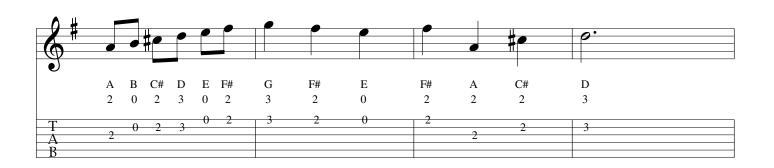


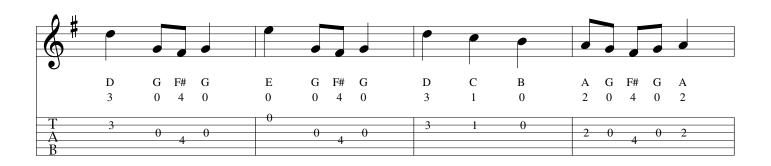


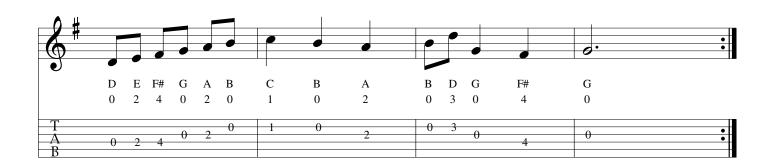


mel 1.132 Minuet In G (continued) mel 1.132







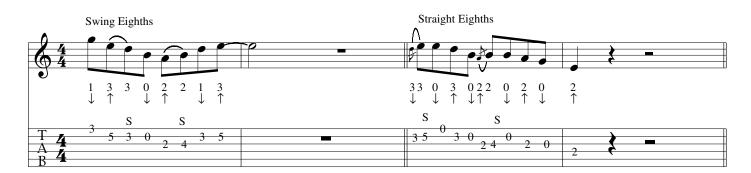


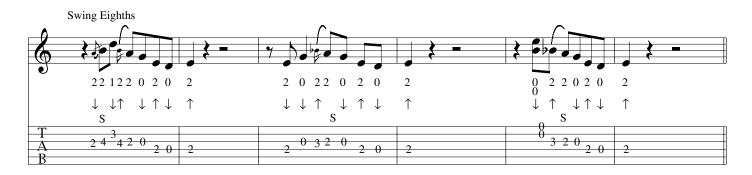


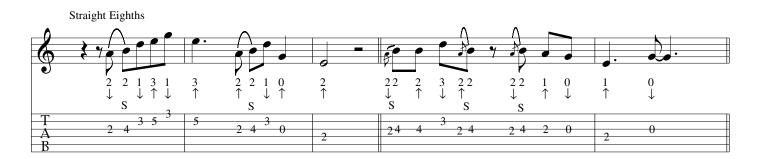
E Minor 7/11 Pentatonic Licks

mel 1.311

open position, with slides

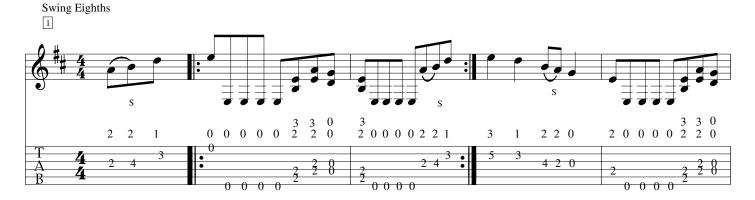


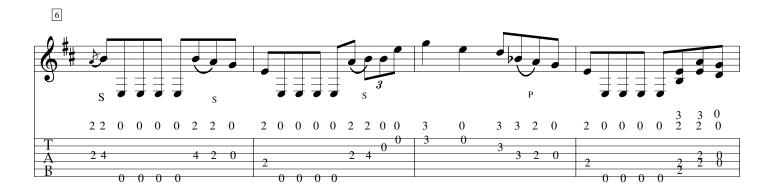


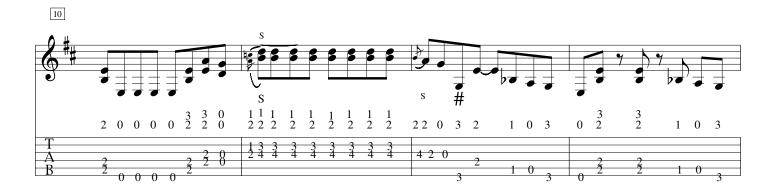


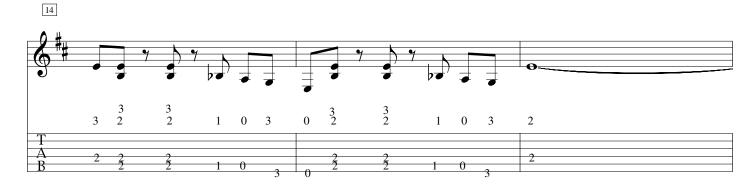


Mojo/Voodoo Blues #1 in E

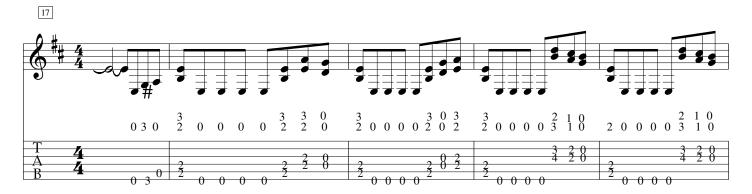


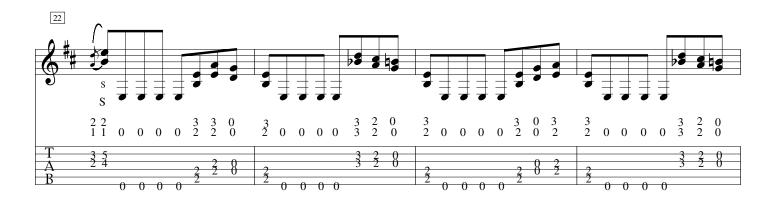


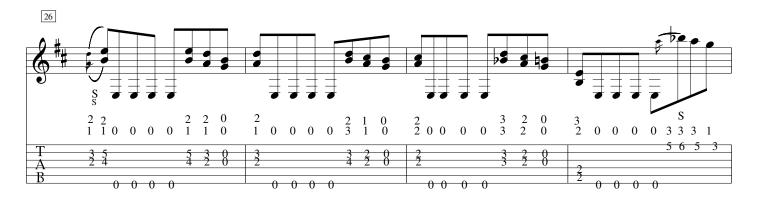


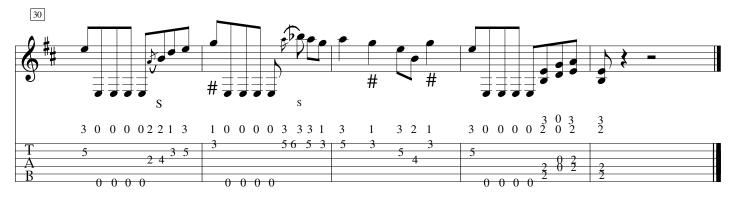


Mojo/Voodoo Blues #1 In E (continued)





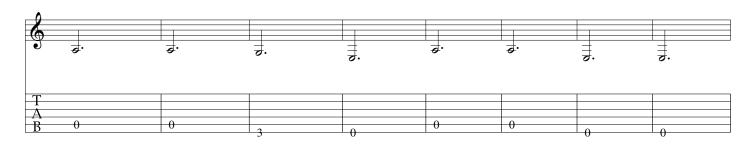




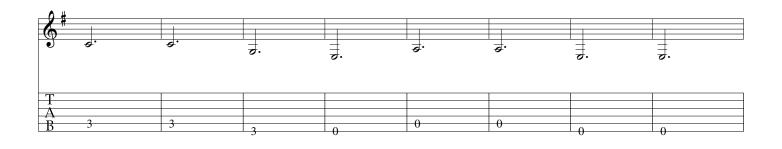
Greensleeves

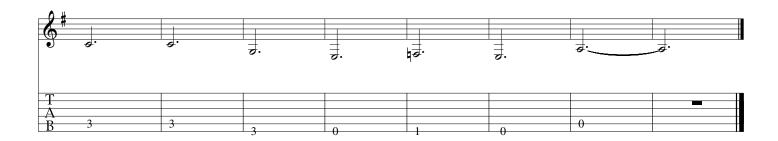
mel 1.329

This shows only the bass for Greensleeves. Try to find the melody "by "ear". The melody is shown with the bass on the next page, if you need some hints.

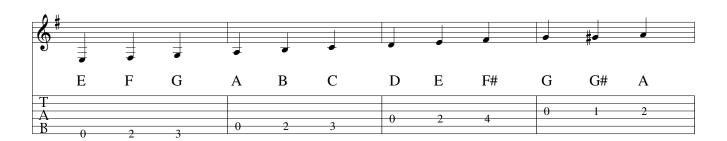








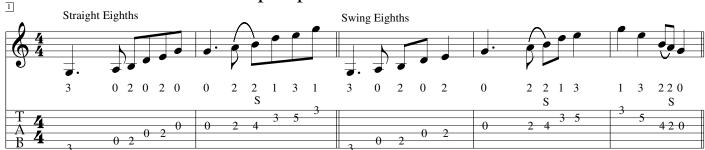




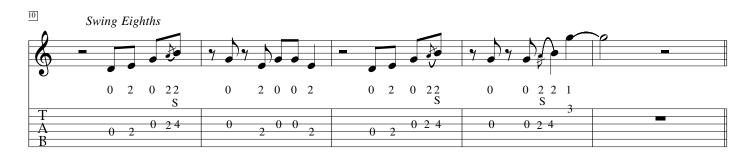
G Major 6/9 Pentatonic Licks

mel 1.331

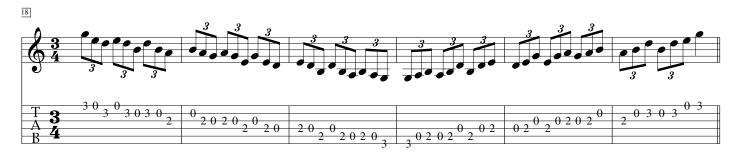
open position with slides











G Major 6/9 Pentatonic Licks

mel 1.332

open position (continued)



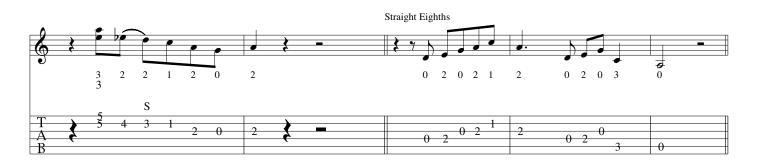
mel 1.335 mel 1.335 **Amazing Grace** i i i m m i i m i D D7 m m 3 0 G/B C m $m \quad i \quad i$ m i i i m 0 G G sus. 4 | i m i i m m m p 0 0

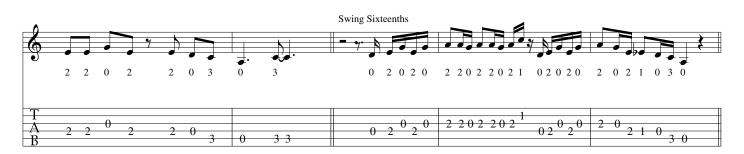
A Minor 7/11 Pentatonic Licks

mel 1.435

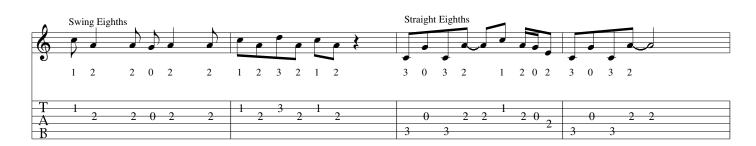
open position, with slides











A Minor 7/11 Pentatonic Licks

mel 1.436

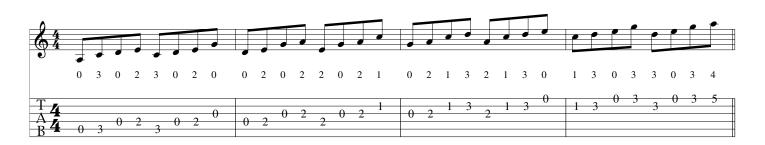
open position (continued)

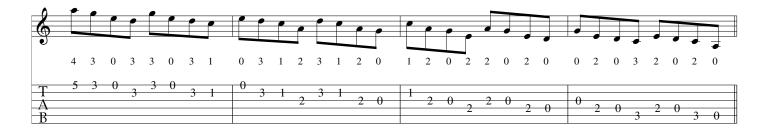


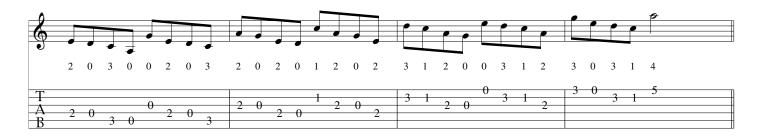
A Minor 7/11 Pentatonic Licks

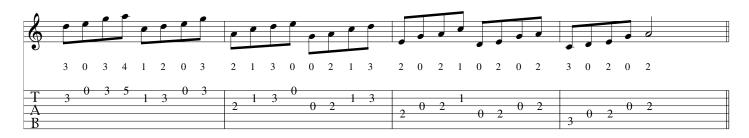
mel 1.437

open position (continued)





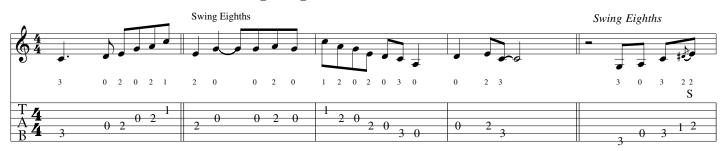




C Major 6/9 Pentatonic Licks

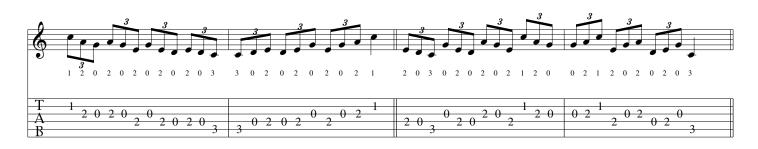
mel 1.440

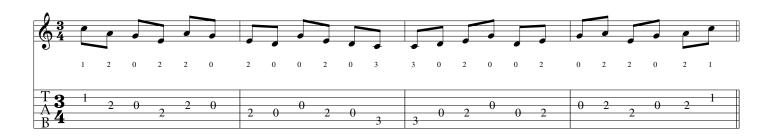
open position, with slides



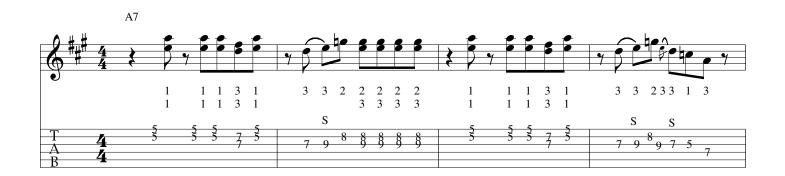


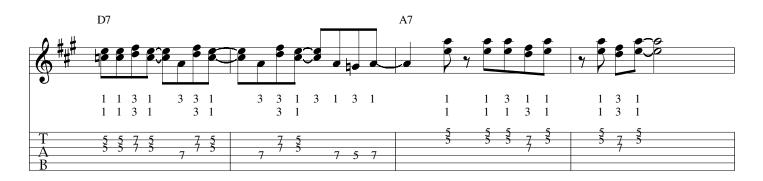


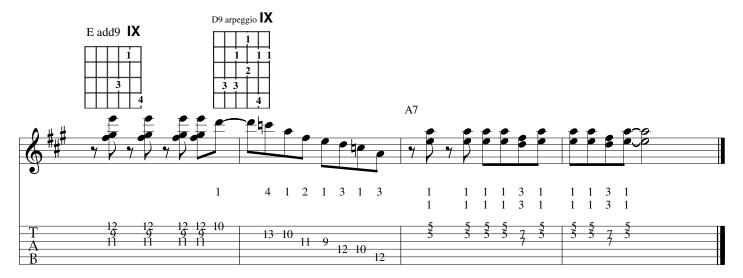




Chuck Berry Style #1

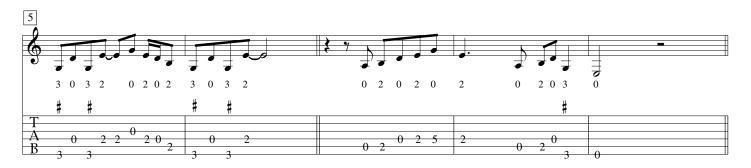




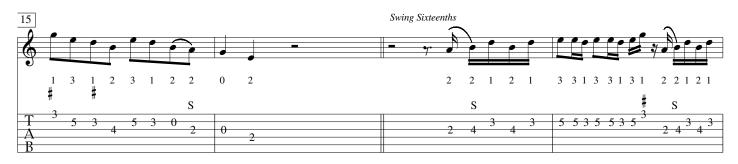


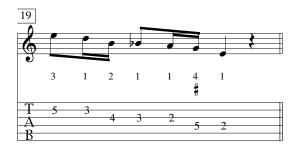
E Minor 7/11 Pentatonic Licks open position, with slides and blue notes







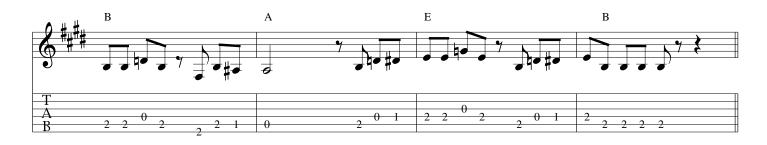


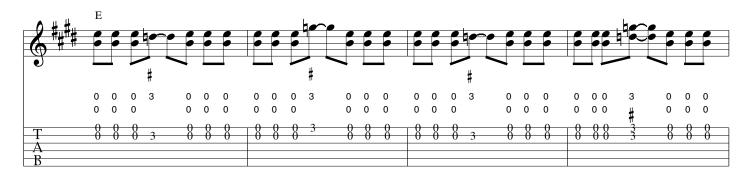


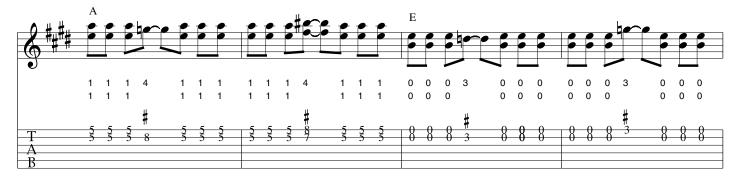
Surf's Up!



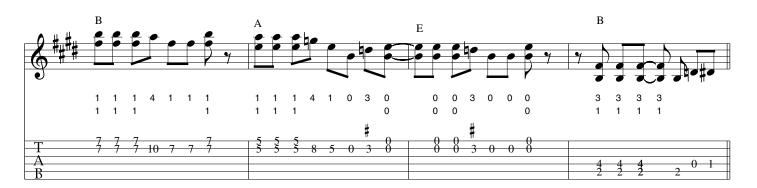




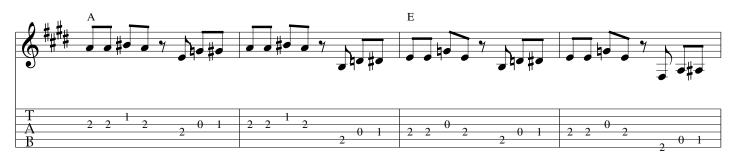




mel 1.621 Surf's Up! mel 1.621 (continued)

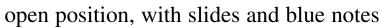


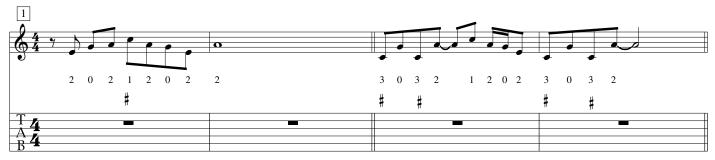


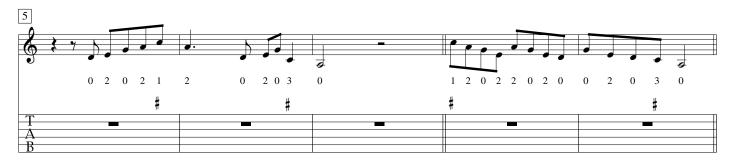


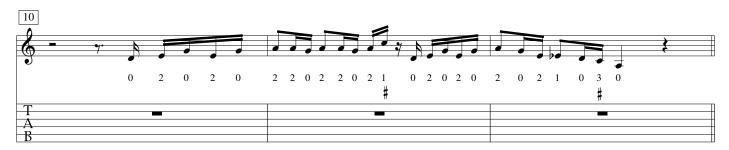


A Minor 7/11 Pentatonic Licks

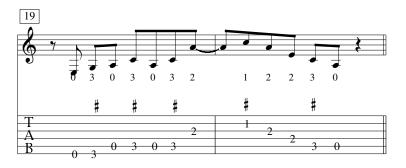










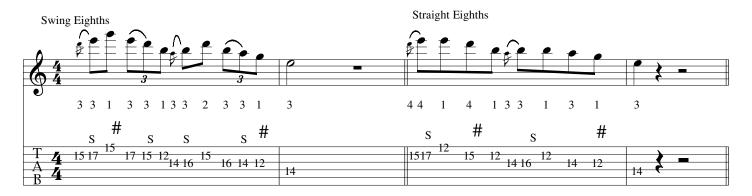


Ā B

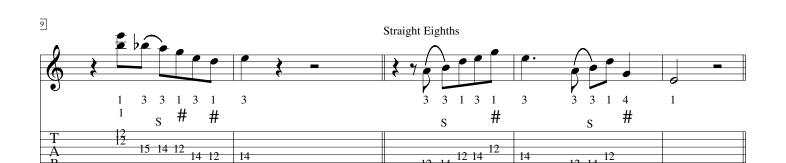
E Minor 7/11 Pentatonic Licks

mel 1.705

twelfth position with slides and blue notes









E Minor 7/11 Pentatonic Licks

mel 1.706

twelfth position with slides and blue notes (continued)

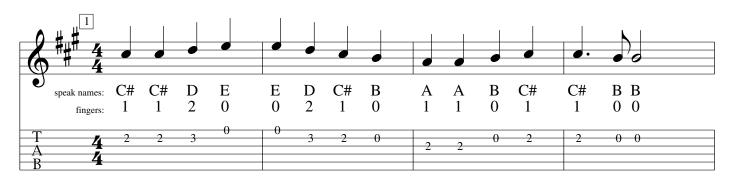


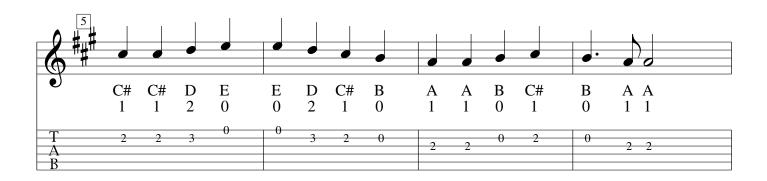


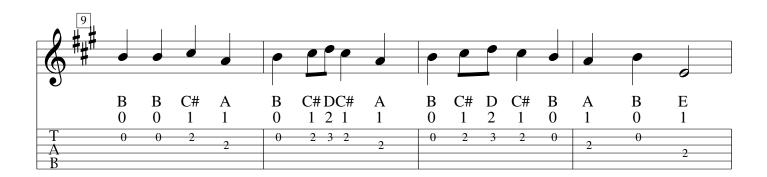
Ode To Joy

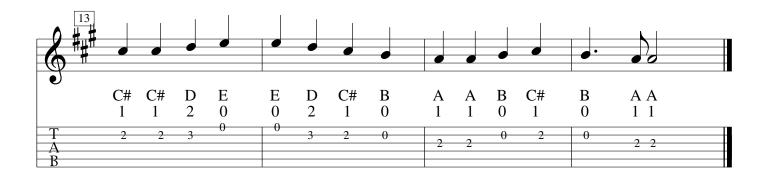
mel 1.717

from Beethoven's Ninth Symphony



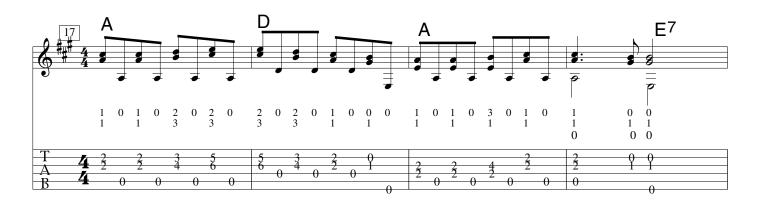


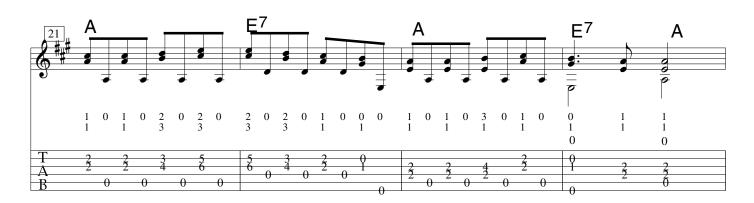


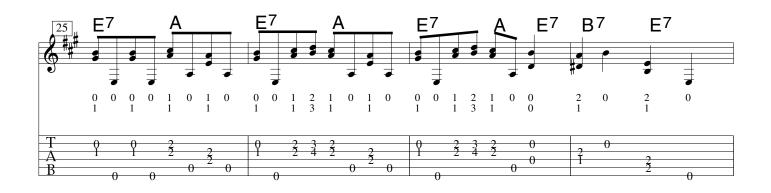


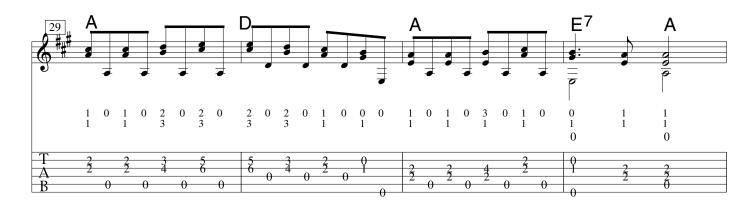


Ode To Joy (continued)



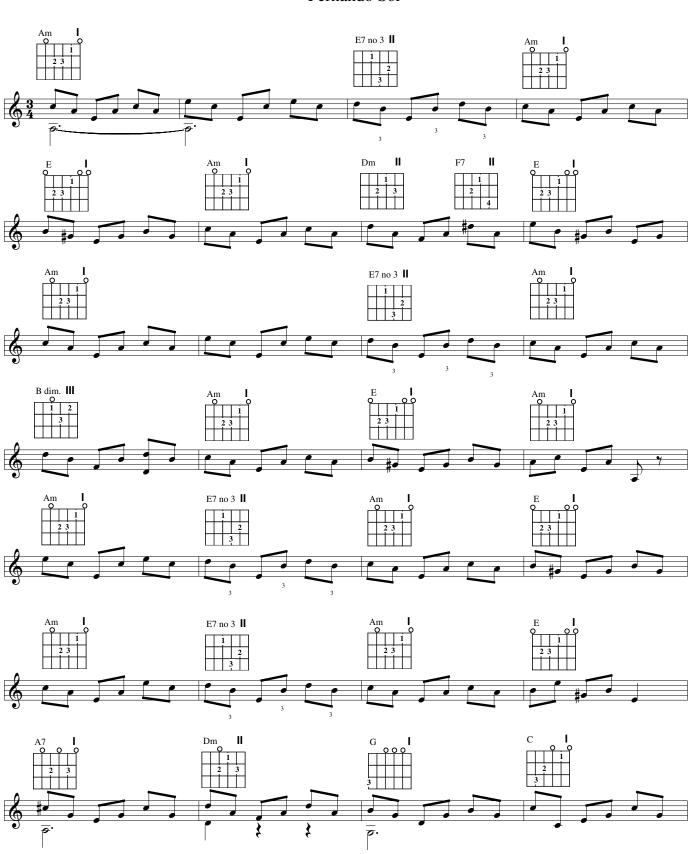


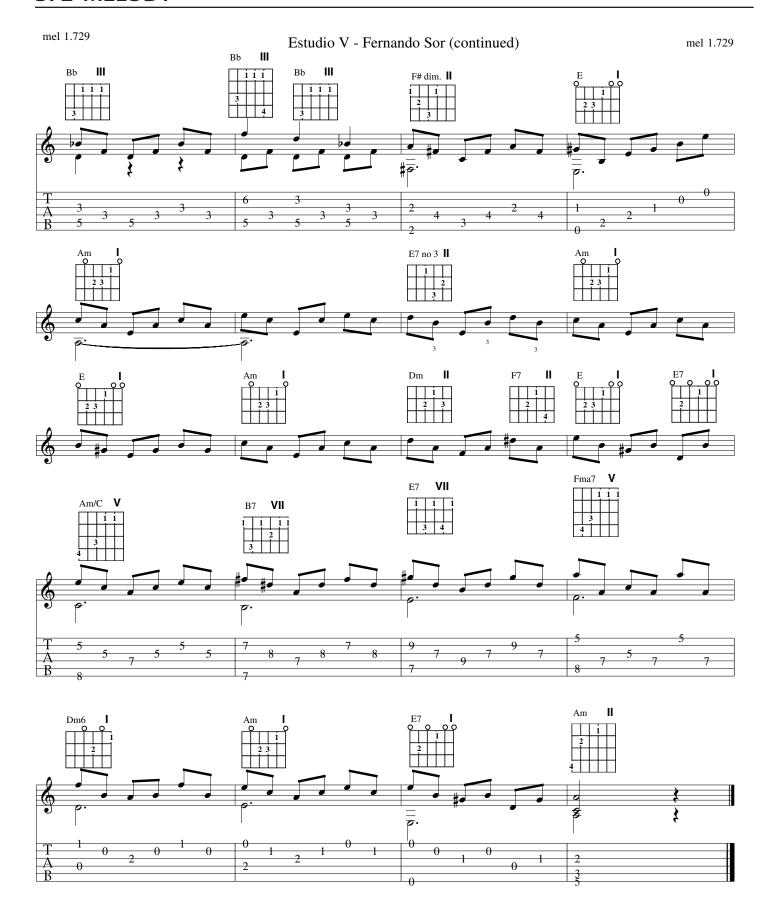




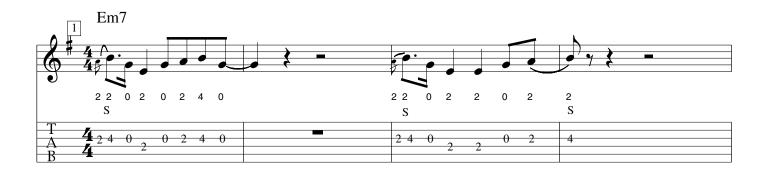


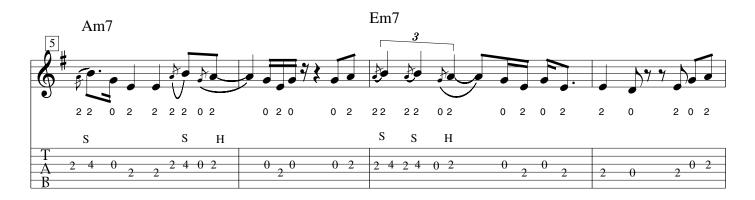
Fernando Sor

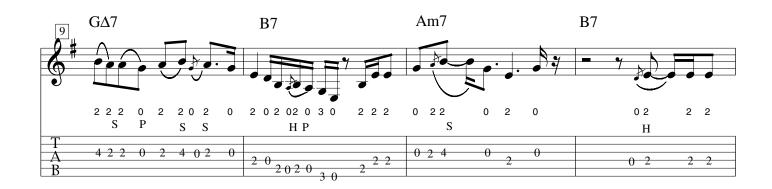


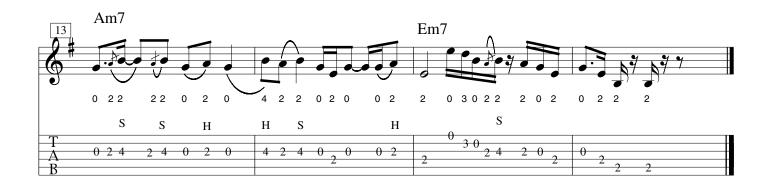


Albert King Style #1





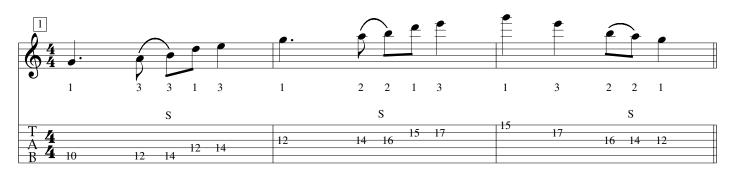


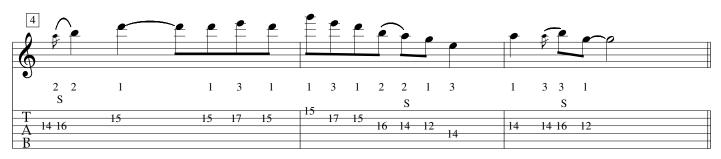


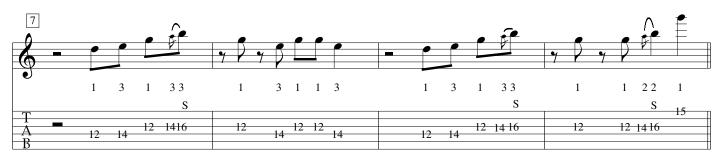
G Major 6/9 Pentatonic Licks

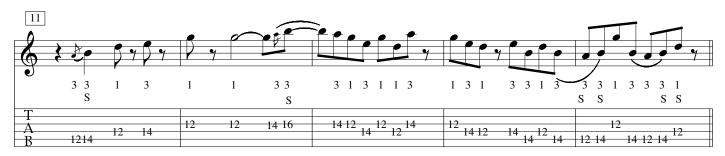
mel 1.745

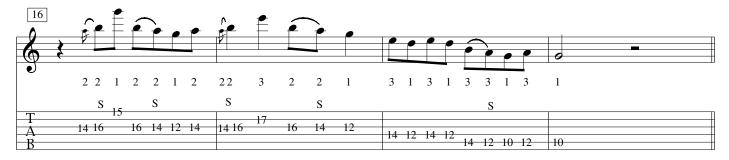
twelfth position with slides









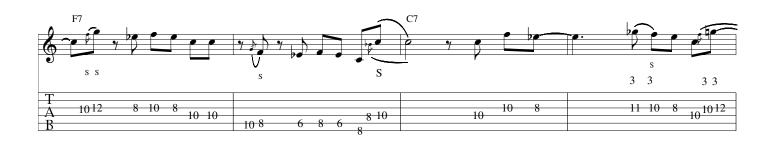


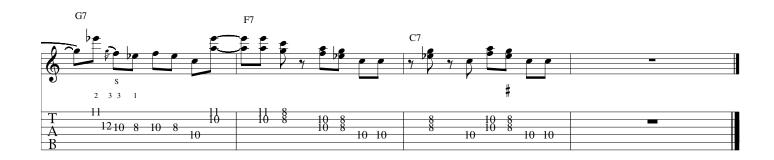
Minor 7/11 Blues In C #1

mel 1.780

Swing Eighths

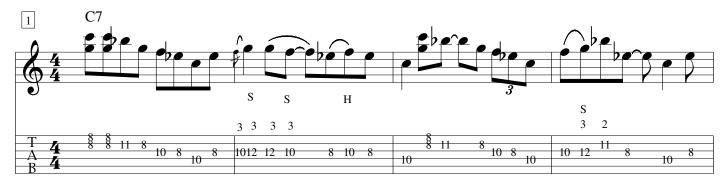


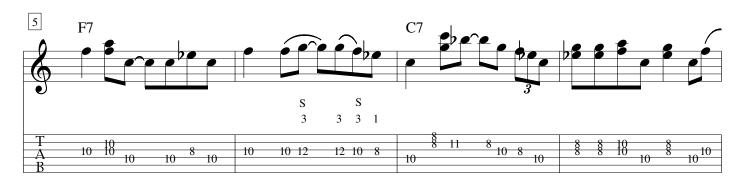


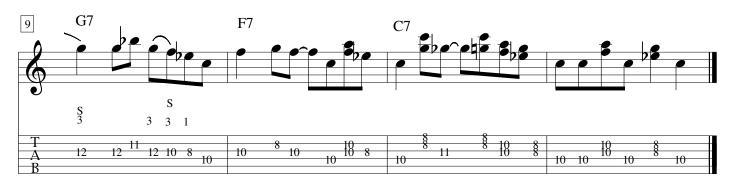


Minor 7/11 Blues #2 in C





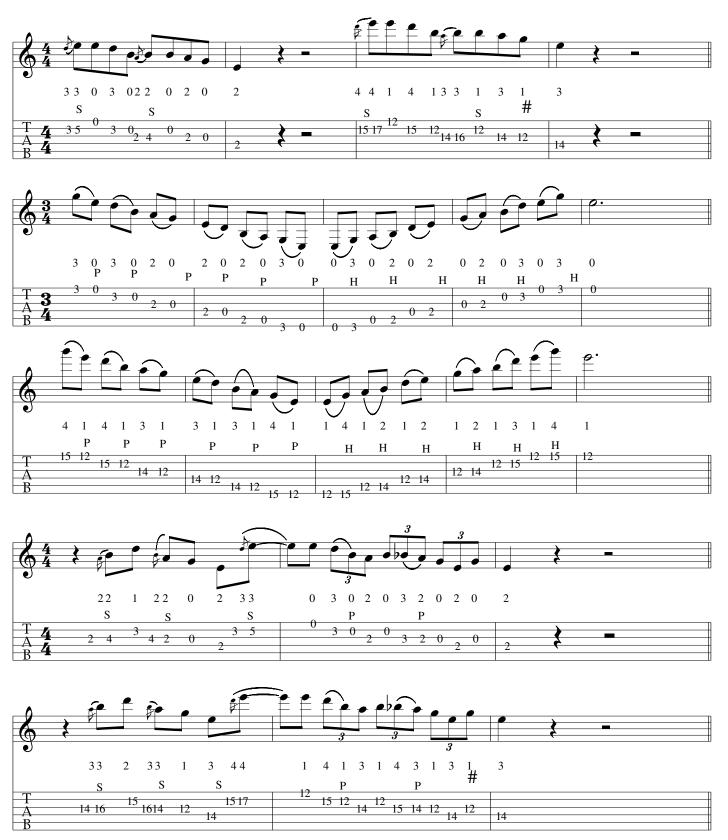




E Minor 7/11 Pentatonic Licks

mel 1.815

Open and twelfth position. With slides, hammers, pull-offs and blue notes



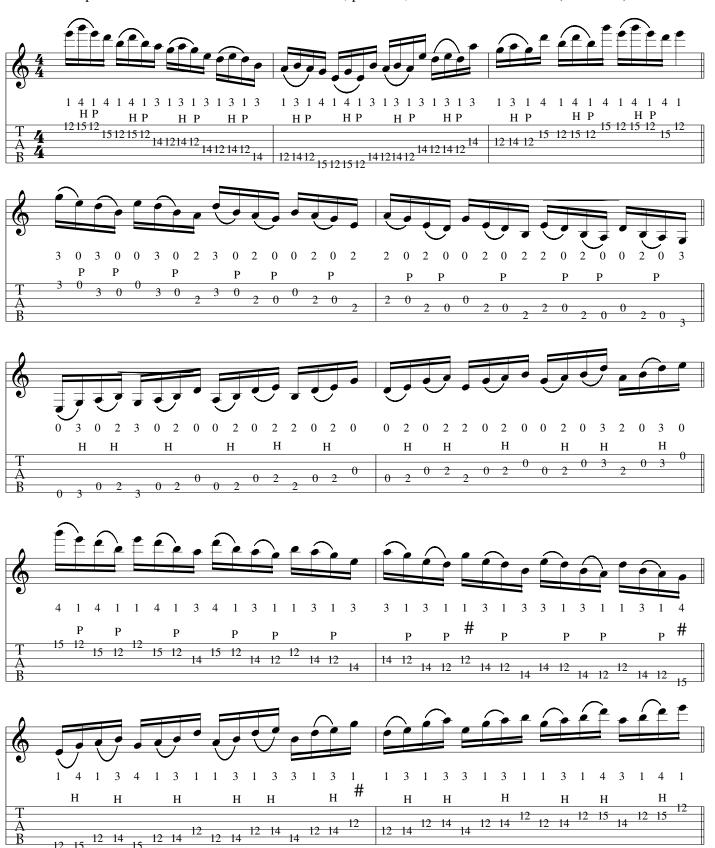
E Minor 7/11 Pentatonic Licks

mel 1.816



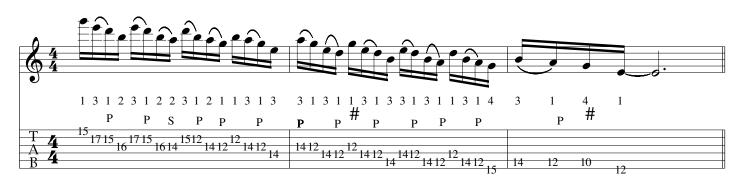
E Minor 7/11 Pentatonic Licks

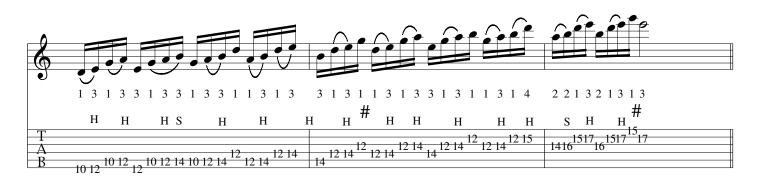
mel 1.817



E Minor 7/11 Pentatonic Licks

mel 1.818



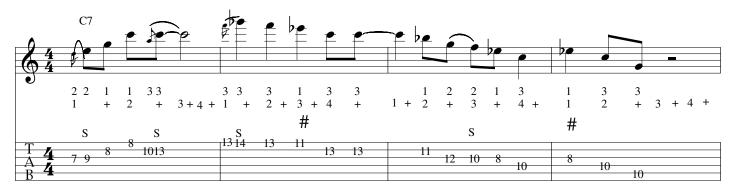


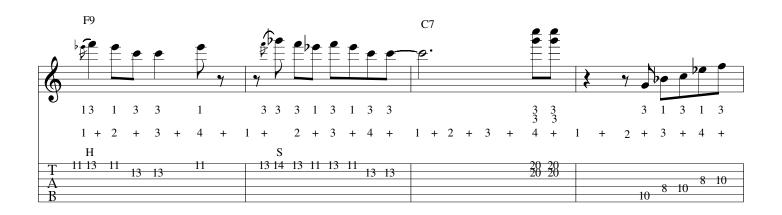


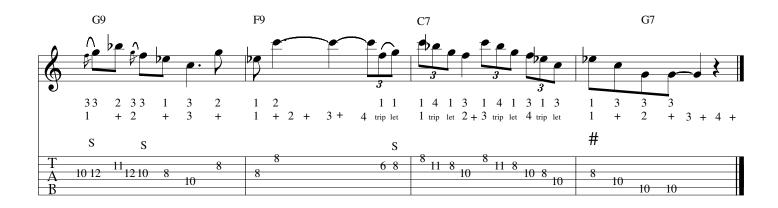
Albert King Style #2

mel 1.824

Swing Eighths



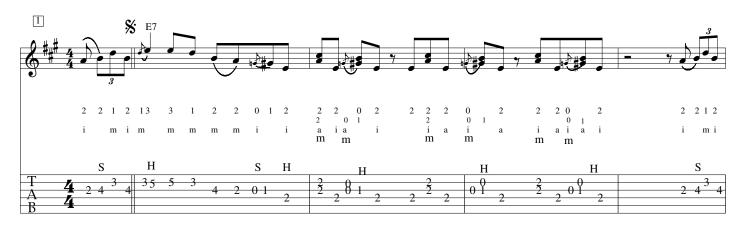


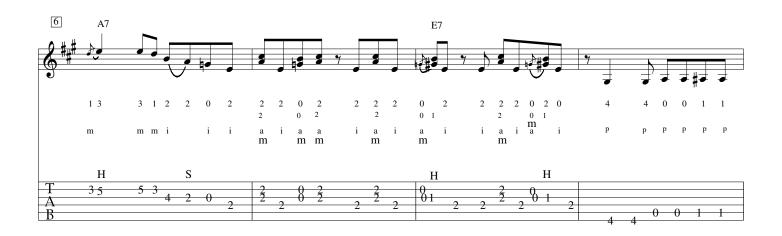


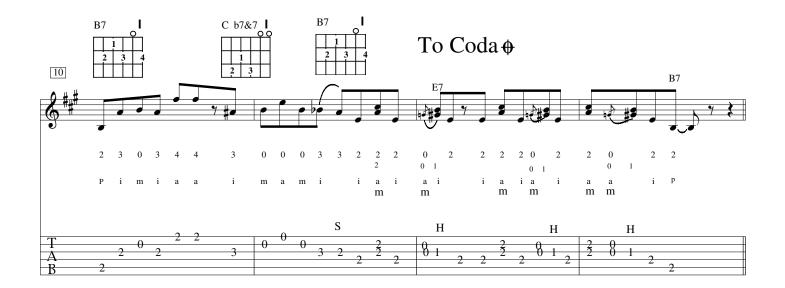
Acoustic Shuffle In E without bass

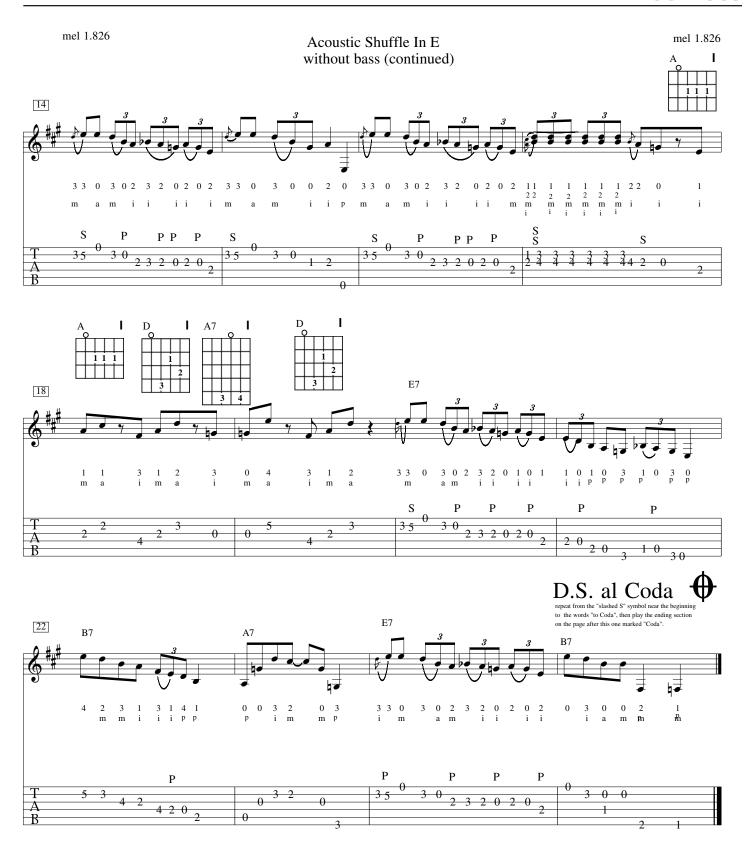
mel 1.825

(a version will appear shortly after with bass)

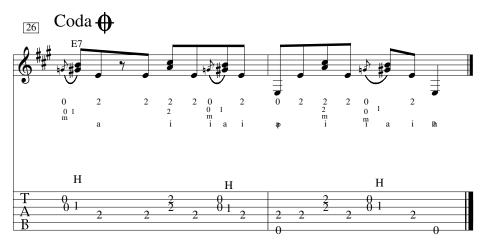








Acoustic Shuffle In E without bass (continued)

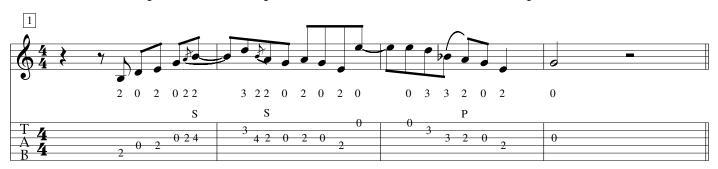


decelerando (gradually slower)

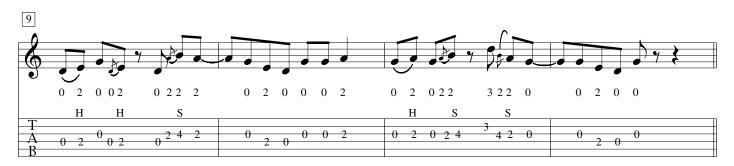
G Major 6/9 Pentatonic Licks

mel 1.860

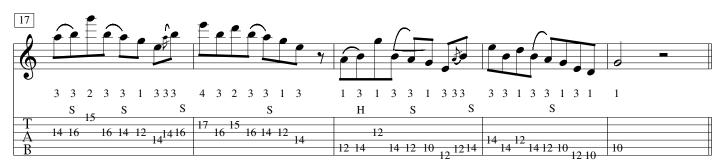
Open and twelfth position. With slides, hammers and pull-offs.





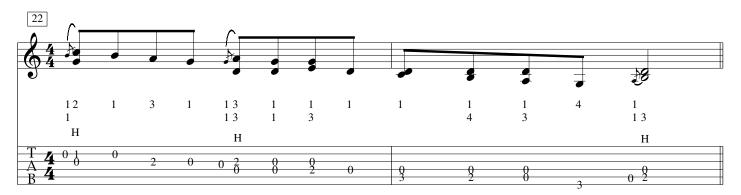


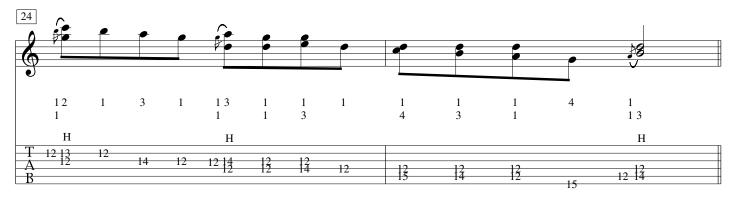




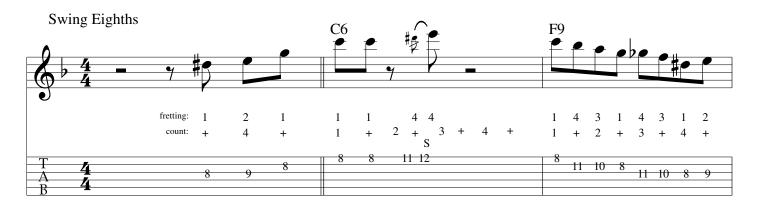
G Major 6/9 Pentatonic Licks

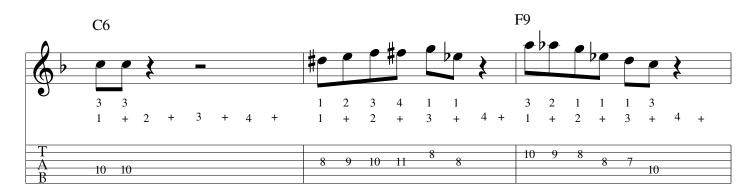
mel 1.861

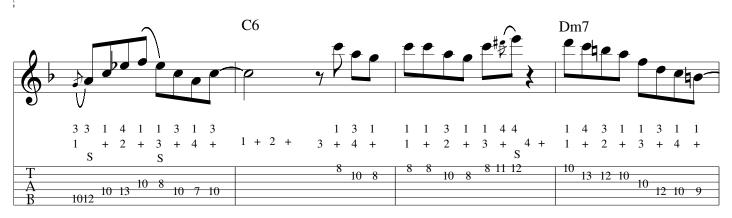


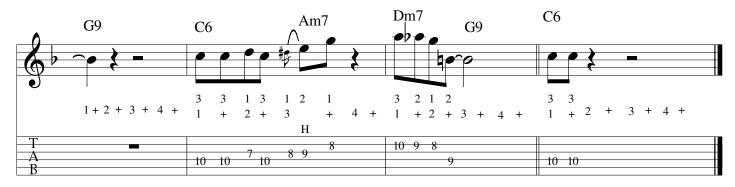


Swing Blues #1





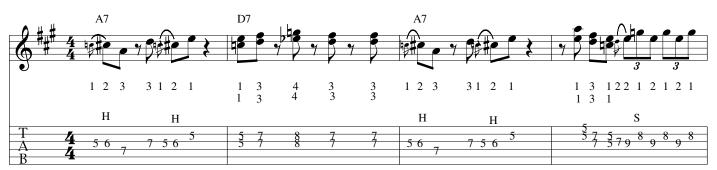


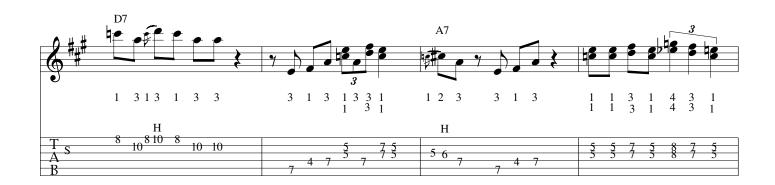


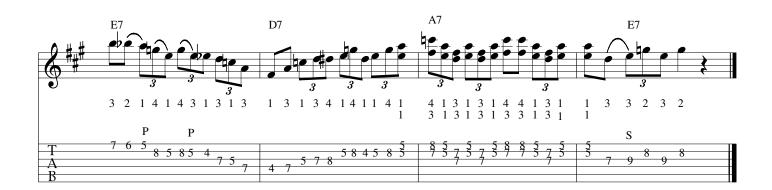
Swing Blues #2

mel 1.868

Swing Eighths



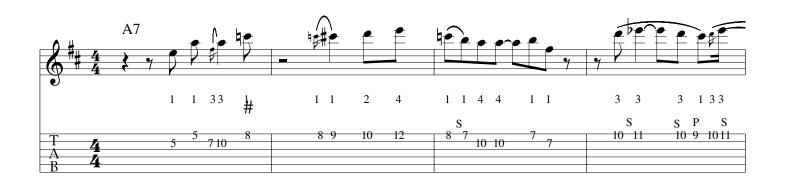


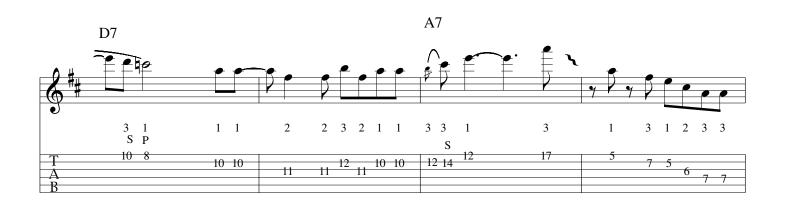


1

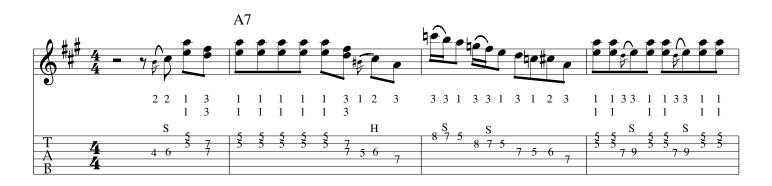
B.B. King Style

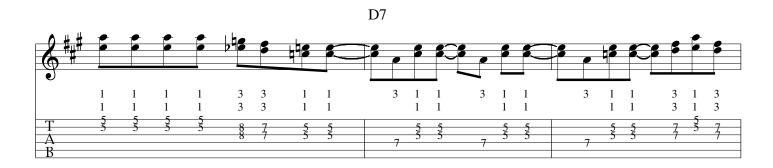
mel 1.871

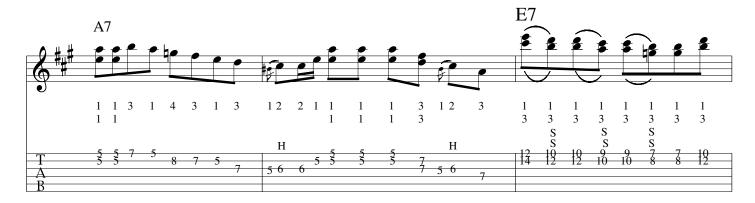


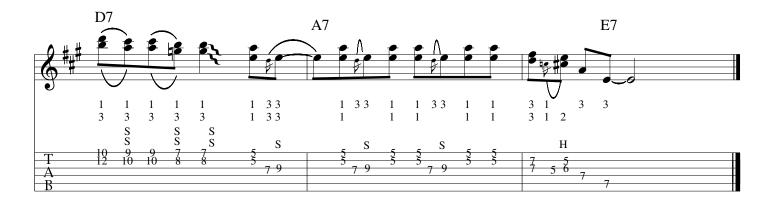


Chuck Berry Style #2









A Minor 7/11 Pentatonic Licks

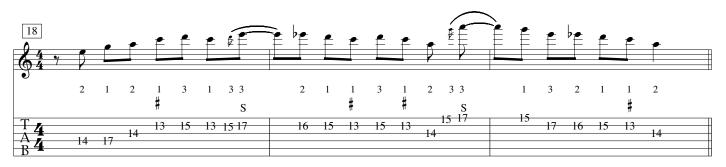
mel 1.926

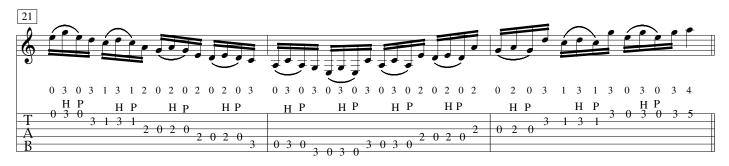
Open and twelfth position. With slides, hammers, pull-offs and blue notes

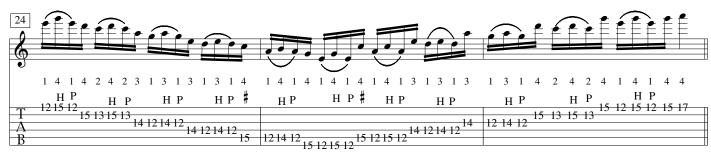


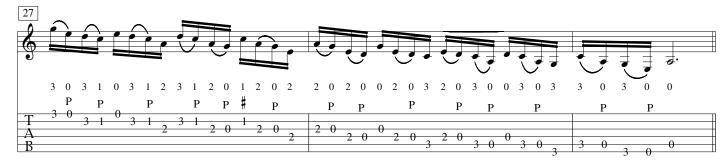
A Minor 7/11 Pentatonic Licks

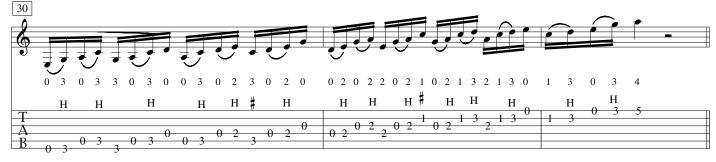
mel 1.927





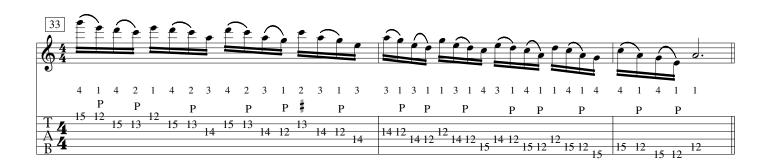






A Minor 7/11 Pentatonic Licks

mel 1.928





394 MELODY mel 1.929 Jeff Beck & Albert King solo study A minor arpeggio 2 2 Swing Eighths

mel 1.929



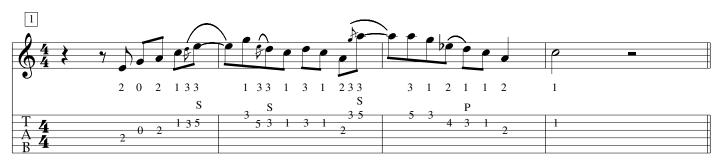
Am7/11 pentatonic scale, emphasizing Am arpeggio tones

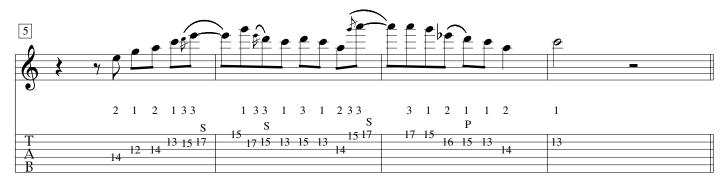


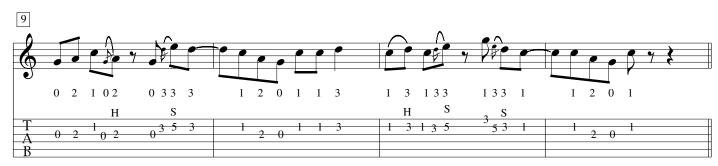
C Major 6/9 Pentatonic Licks

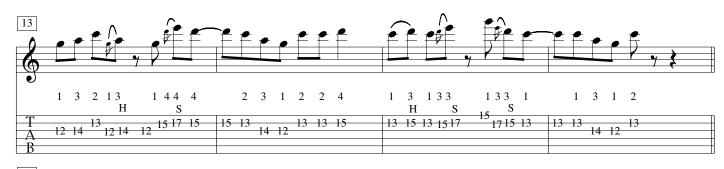
mel 1.945

Open and twelfth position. With slides, hammers and pull-offs.





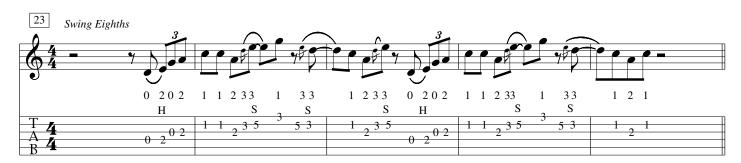


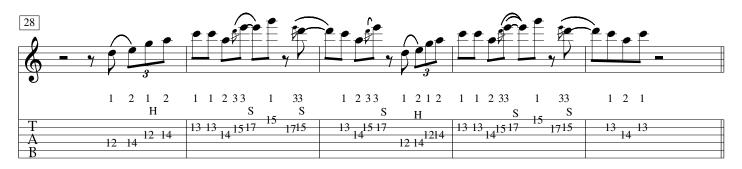


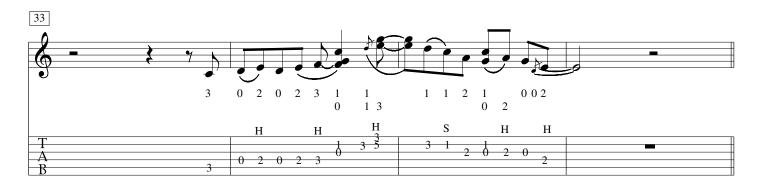


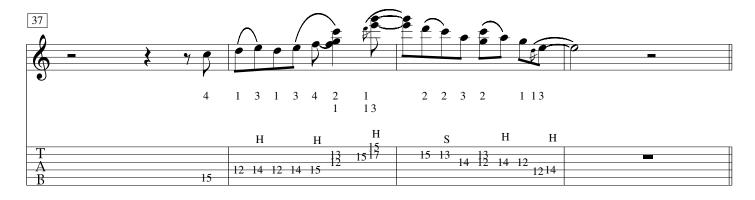
C Major 6/9 Pentatonic Licks

mel 1.946

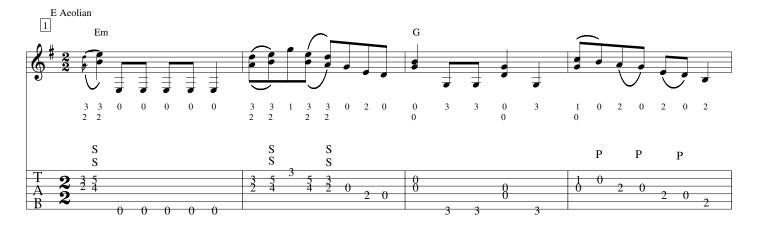


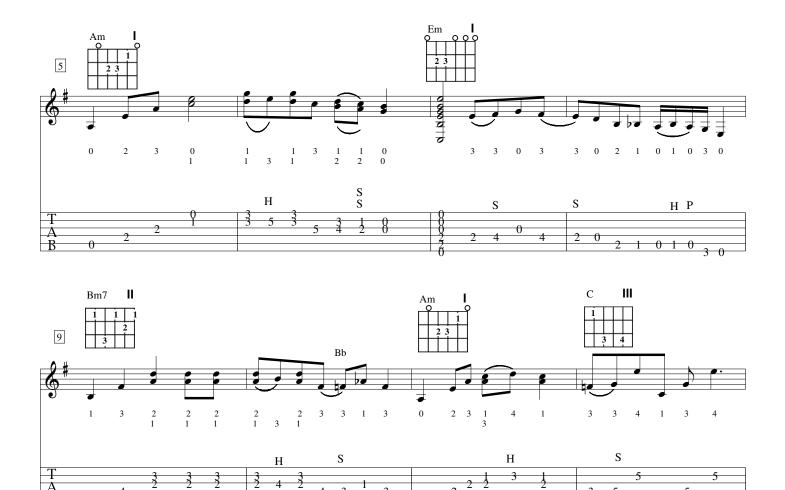




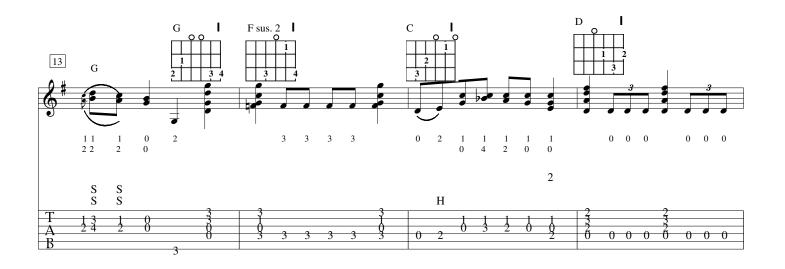


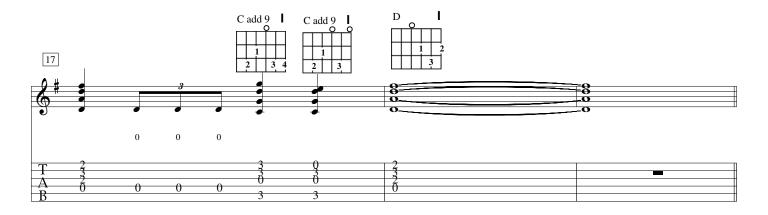
Hendrix-Style Double Stops

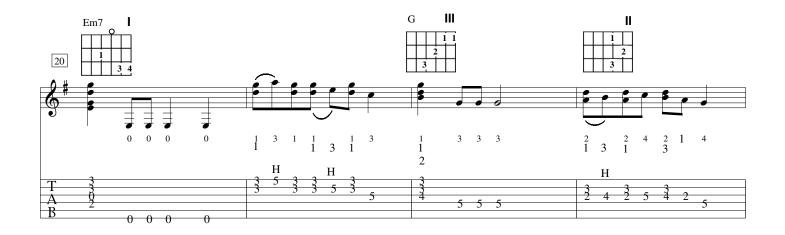


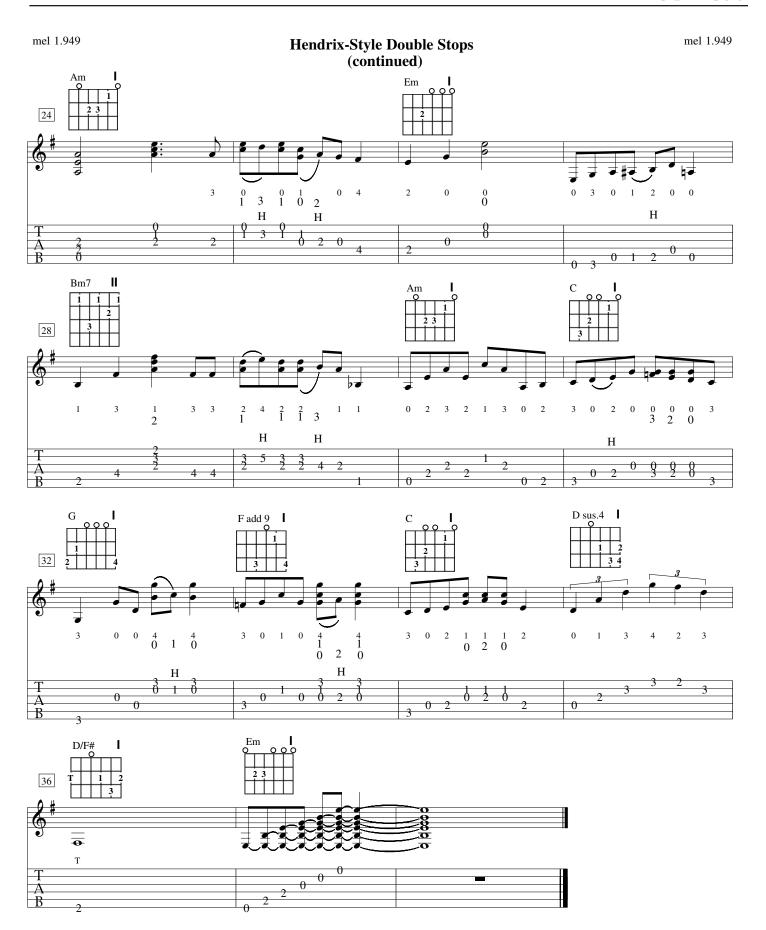


Hendrix-Style Double Stops (continued)



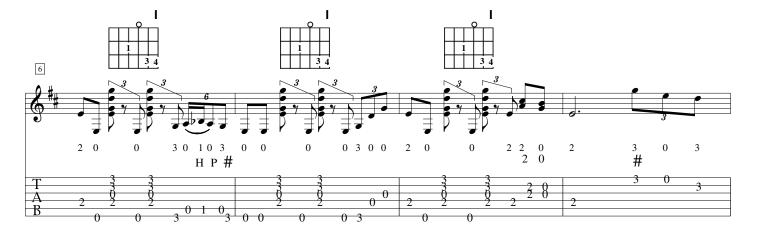


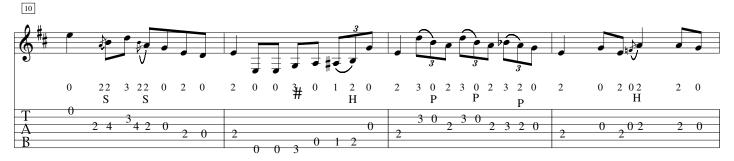


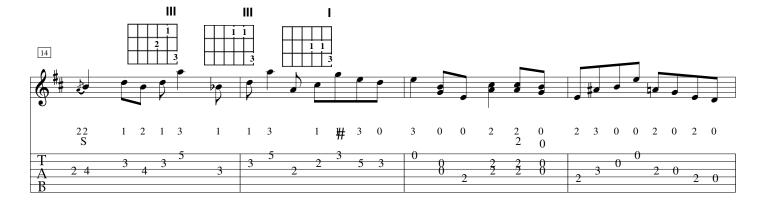


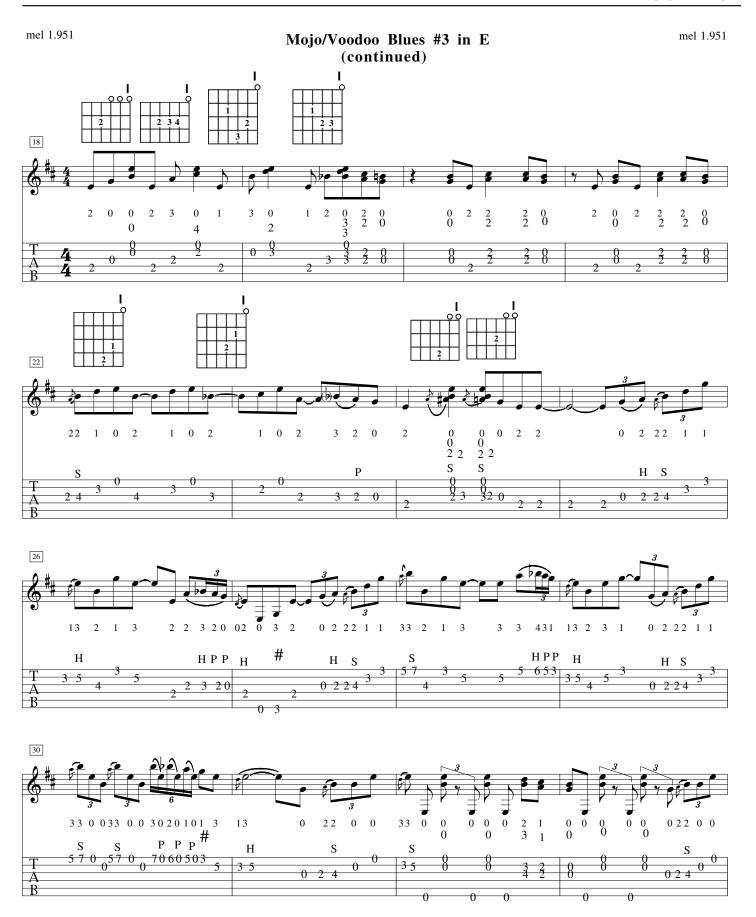
Mojo/Voodoo Blues Number 3



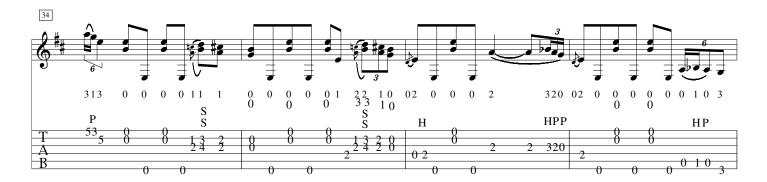


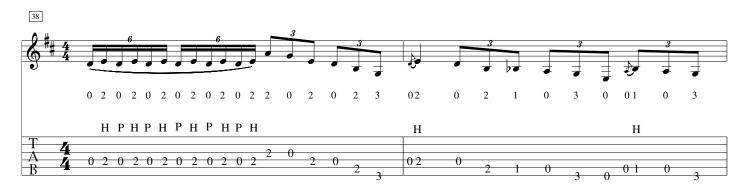


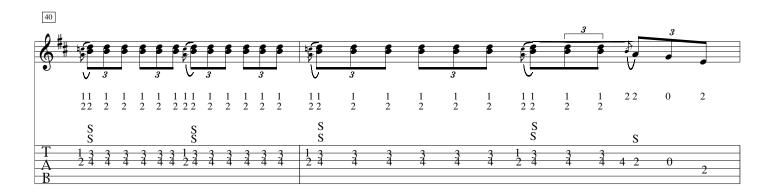


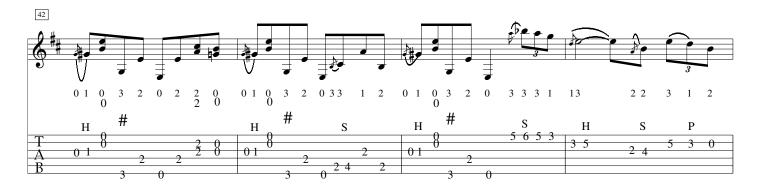


Mojo/Voodoo Blues #3 in E (continued)

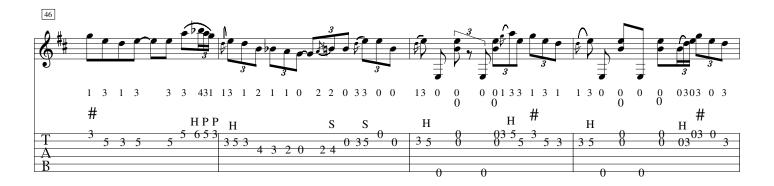


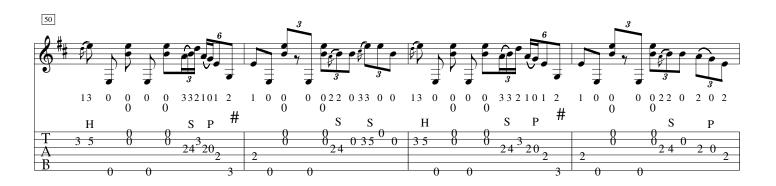


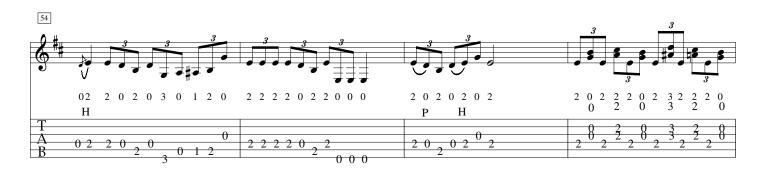


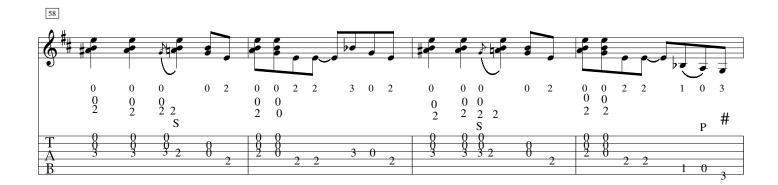


Mojo/Voodoo Blues #3 in E (continued)











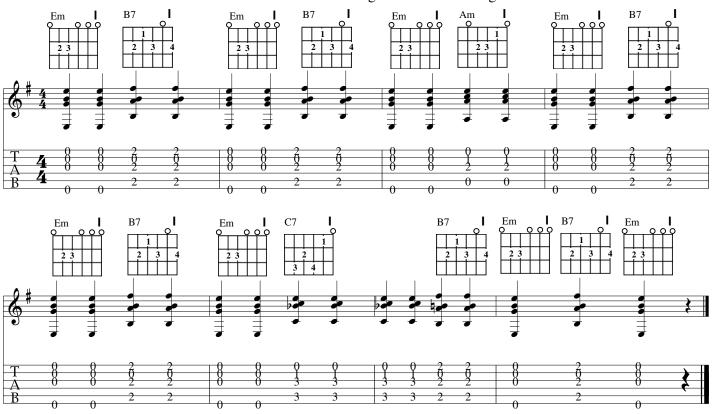
Minor Fingerpicked Blues #1

mel 1.980

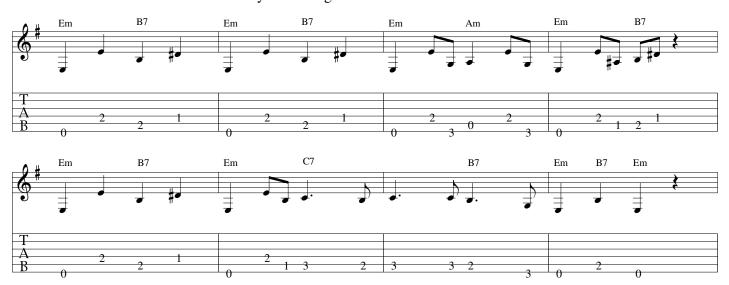
Swing Eighths

Exercise 1 of 3 for bars 1-8.

Pluck the bass notes with the thumb. Pluck the remaining notes with the fingers.



Exercise 2 of 3 for bars 1-8. Bass only. Still finger the chords. Pluck with the thumb.

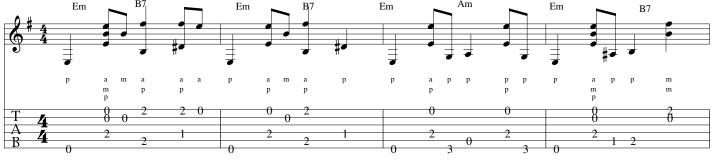


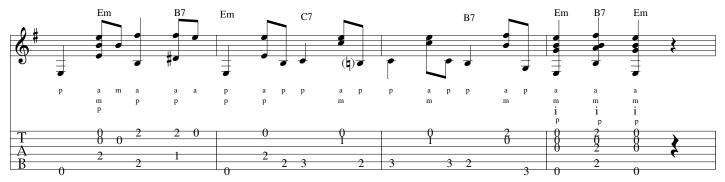


Minor Fingerpicked Blues #1 (continued)

mel 1.981

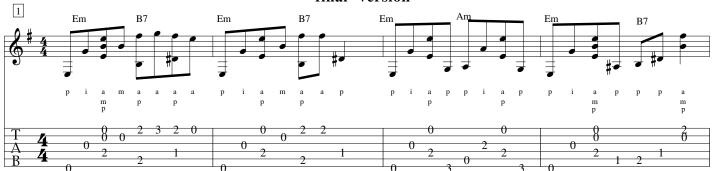


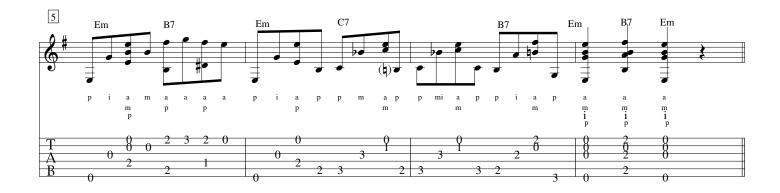




Minor Fingerpicked Blues #1

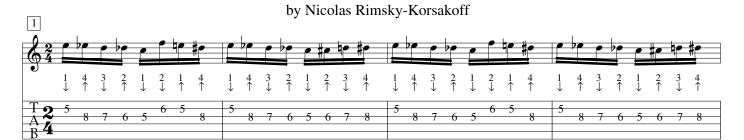


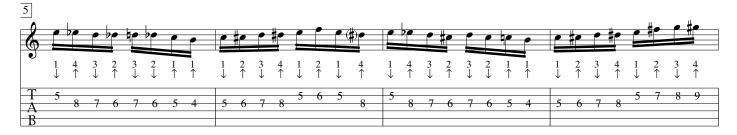


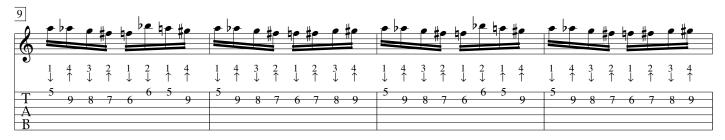


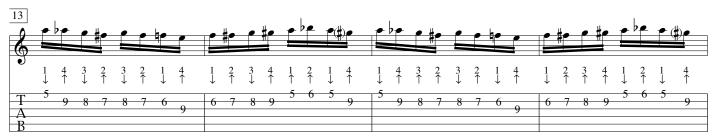


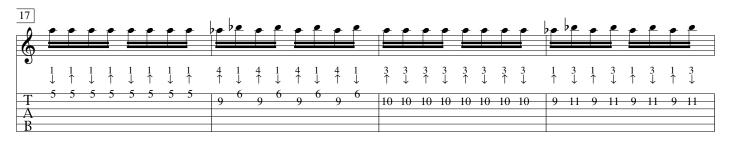
Flight Of The Bumblebee

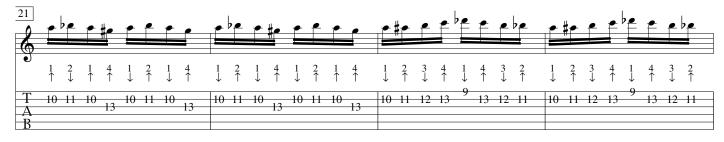


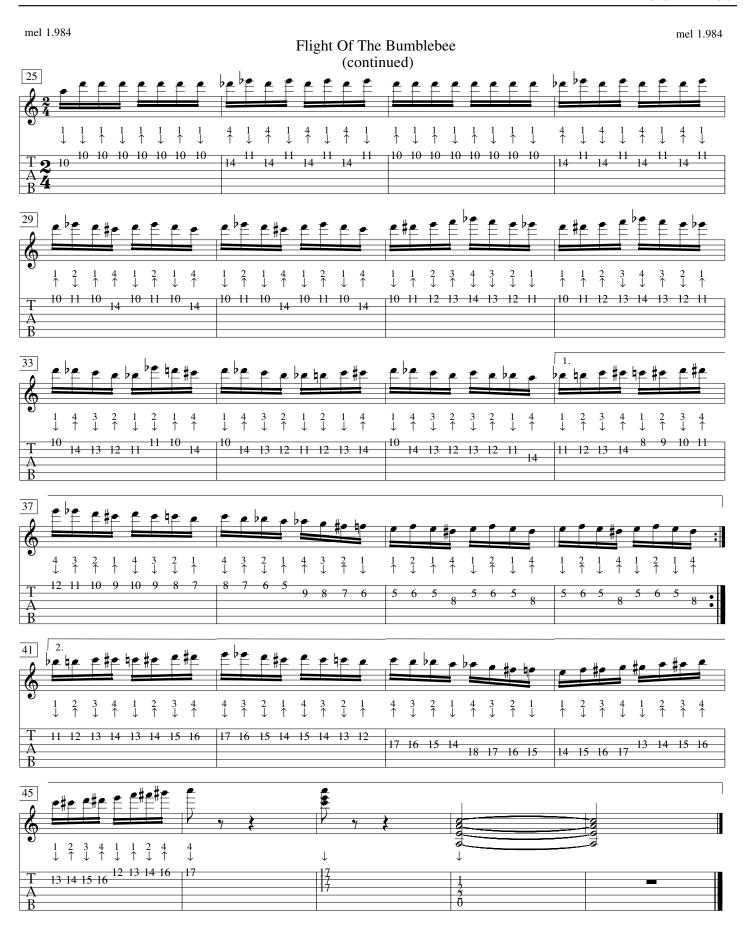




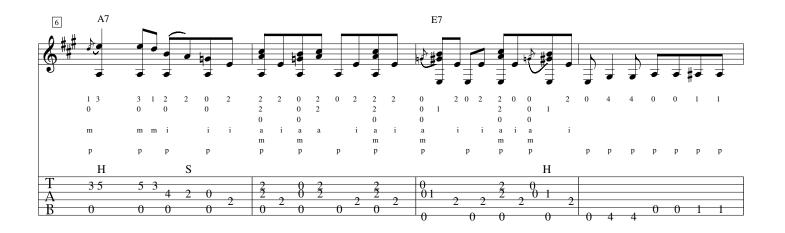


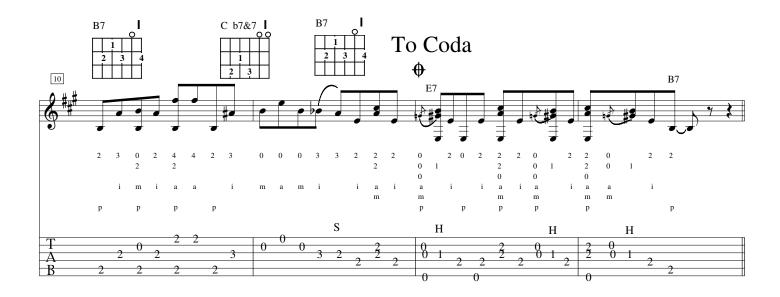


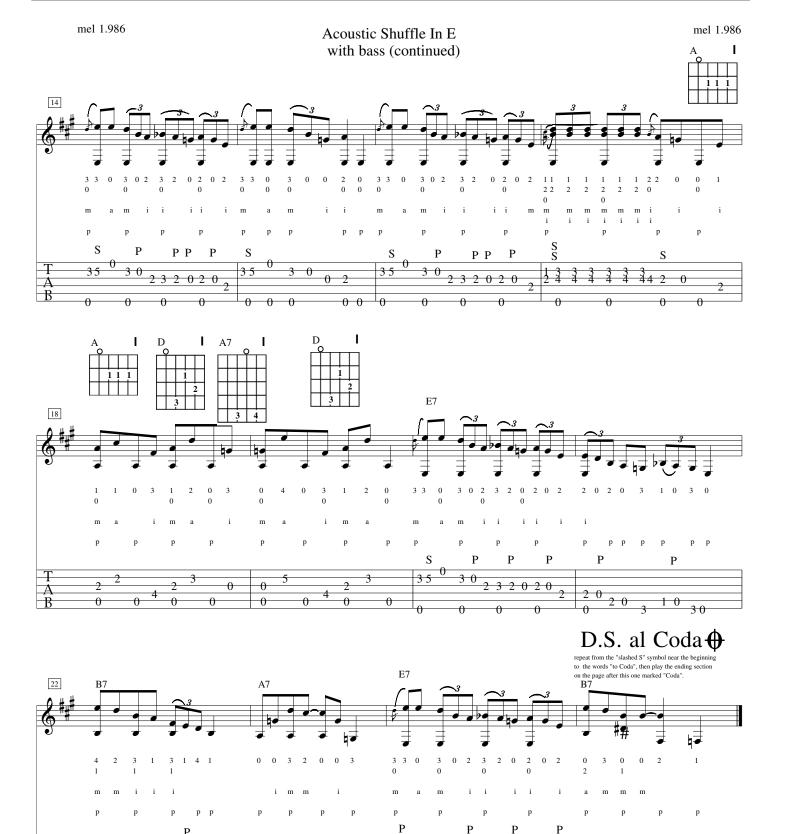








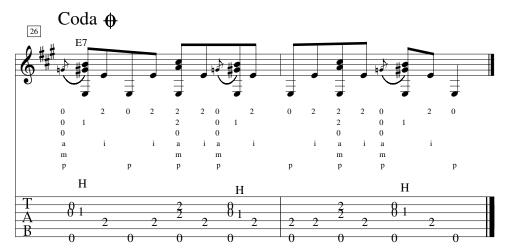




Acoustic Shuffle In E with bass (continued)

mel

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decelerando (gradually slower)